

OF
PEOPLE,
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STATE PLANNING: AIMS, WAYS, RESULTS



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ANATOLY YEFIMOV, ALEXANDER ANCHISHKIN



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STATE PLANNING

**Aims,
Ways,
Results**

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TRANSLATED BY L. LEMPert



INTRODUCTION

The 20th century is witnessing a tremendous increase in man's power over the formerly mysterious forces of nature. The achievements of science and technology in creating new substances and in penetrating the world of infinitesimals and boundless space outstrip the boldest imagination. There is, however, a sphere of scientific and practical endeavour which invades life not in such sensational ways as atomic energy, synthetic chemistry or rocketry, but which consistently and inexorably penetrates all spheres of social life, exerting tremendous impact on mankind's progress. This is planning. If we are to make use of symbols that exactly reflect our dynamic age of technical and social change, planning perhaps should be mentioned alongside the atom and outer space.

To define the place and functions of planning in the contemporary world means to examine the forms of development of production, its concen-

tration on the basis of ever growing division of labour, the transformation of social relations, above all property relations, the problems of economic development in different parts of the globe. Planning comes in contact with technology, production, social relations, politics and psychology, the economy being its main object. It is above all economic planning, and deals with the economic development both of individual countries and of international complexes.

If we try briefly to define the social function of economic planning, it could be expressed in the following words: replacement of market spontaneity with conscious purposeful activity, transition from the kingdom of blind necessity into the kingdom of cognised laws. Karl Marx, the founder of scientific socialism, wrote that "what distinguishes the worst architect from the best of bees is that the architect raises his structure in his imagination before he creates it in reality."¹ Conscious, purposeful activity differentiates an architect from a bee and a planned economy from a spontaneous economy. The possibility of planning arises only in definite conditions. An architect has nothing to do if there is no construction. But the properties of a house he designs, just as an economic development plan, depend not so much on good intentions and wishes as on objective conditions. These conditions, social and economic, determine the principles and methods of drafting plans, their economic content and organisational forms.

Planning arose in the Soviet Union as an in-

¹ Karl Marx. *Capital*, Vol. I, p. 178.

evitable consequence of the fundamental socio-economic changes effected after the Great October Revolution in 1917. J. Tinbergen, noted Dutch economist, writes that "there did not exist, however, at the time the Bolsheviks took over, any elaborate system of planning and it had to be built up on the basis of subsequent practical experience." ¹

The plans for supplying Soviet Russia with grain and coal, drawn up in 1919 and 1920 on Lenin's initiative, were the first national economic plans in history. Since then planning in the USSR has traversed a long road of development, increasingly influencing the theory and practice of planning the world over.

Planning in different forms is now utilized in scores of European, American, Asian and African countries. The ideas of planning are advocated by men of most diverse political convictions and from opposing social systems. Planning, brought into being by the objective conditions of our age, is overcoming hostility, mistrust and scepticism and taking root in more and more countries on all continents. "The importance of national planning for economic development is almost universally recognised today," U Thant, Secretary-General of the United Nations, noted. "The fact that in recent years country after country has made use of planning in one form or another attests to this widespread recognition." ²

¹ J. Tinbergen. *Central Planning*. New Haven and London, 1964, p. 4.

² *Planning for Economic Development*. Report of Secretary General transmitting the study of a group of experts. United Nations, New York, 1963, p. 4.

The essential and frequently radical differences in social and economic conditions prevailing in individual countries naturally make it impossible to speak of planning as something uniform. The purposes, content, principles and methods of plan-drafting change, depending on the objective conditions. The main differences are bound up with the existence of two entirely different social systems—the socialist and the capitalist.

Socialist planning is based on public, state ownership of the instruments and means of production; it reflects the systematic operation of the economic laws of socialism. It embraces the entire economy, all its spheres. Being centralised in nature, socialist planning rests on broad participation of the working people in drafting and fulfilling the plans.

Capitalist programming is effected in a society where private ownership prevails and the nationalised sector plays an insignificant part or is totally absent. It assumes functions which the capitalist market can no longer discharge. Remaining in most cases only recommendation, capitalist programming is thereby reduced to mere good wishes. Seeking to “rise above classes,” it in effect serves private interests.

We should single out planning in developing countries, which are often called countries of “mixed economy.” The specific economic conditions in these countries are associated, on the one hand, with their low development level, and on the other, with the important role of the state sector and the existence of considerable small-scale production, at times of a patriarchal char-

acter. That is why we shall speak of three types of planning: socialist planning, capitalist programming and planning in the developing countries.

Alongside fundamental differences between the main types of planning there are specific distinctions, features and shades in the nature of planning in separate countries, connected with the economic development level, the social and sectoral composition of the economy, national traditions, etc. Soviet planning, for example, differs from Czechoslovak and the latter, from Yugoslav or Cuban. Still bigger differences exist between capitalist programming in France, the Netherlands, Japan and the United States. The experience of planning in India or the United Arab Republic is wider and more diverse than, for example, in Pakistan or Indonesia. That is why, when speaking of planning, consideration must be given to its specific features and diversity in countries, big and small.

In a small book it is impossible to analyse the entire multifarious experience in planning accumulated by scores of countries. We shall try merely to outline features that are common to socialist planning and capitalist programming, to indicate the fundamental differences in their functions, organisation and methodology and, what is most important, the ultimate aims. In examining socialist planning we shall refer to the experience of the Soviet Union, which offers constructive solutions of major planning problems. This experience is studied in many countries, because behind it stand decades of Soviet economic development, great transformations,

difficulties and history-making accomplishments. Much attention will be given to planning in developing countries since the existing level of their economic development imparts specific features to their plans.

The authors do not lay claim to a profound scientific elaboration and detailed examination of all these problems; this is merely an outline addressed to all who show an interest in the principles, problems and methods of economic planning.

CHAPTER I

Origin and Development of Socialist Planning

The system of socialist planning means the planned operation of a country's entire economy on scientific principles.

A single state plan directs the country's economic development, and its aim is to improve the life of the people, increase their material and spiritual wealth and strengthen the country's independence and defence potential.

A prime function of planning is to determine, on a strictly scientific basis, society's current and long-term requirements in goods and services and establish the sources, methods, and periods for satisfying these needs.

SOURCES OF SOCIALIST PLANNING

The revolutionary abolition of tsarist, landowner and capitalist power and establishment of working people's power were the political prerequisites for introduction of planning in the USSR.

Planning of the economy also presupposes the creation, alongside political prerequisites, of a number of economic and organisational conditions. The most important of these are socialisation of the means of production in key branches of the economy and concentration in the hands of the state of the principal instruments for directing the country's economy. Planning in the Soviet Union developed parallel with the maturing of these prerequisites, without which it is impossible to create a genuinely planned economy.

In the first years of the revolution the Soviet Government did not strive to socialise all the means of production because, as Lenin said, a planned system of economy "can be formed and gain in strength only when the working class learns how to manage, when the prestige of the working masses is consolidated."

The country's interests demanded the strictest all-round accounting and control of production and distribution. That is why a few days after the October Socialist Revolution, on Lenin's proposals, workers' control bodies were set up at all factories, trading establishments and banks for planned regulation of the economy and as the elementary school, for workers in economic management. Workers' control did not deprive employers of their prerogatives. It only supervised

production and sale of the output and the supply of factories with raw materials. But its role and importance were exceedingly great.

Workers' control, in effect, was the first practical step in organising state management of the economy. It was meant to serve as a transitional measure for gradual nationalisation of the entire economy. But in conditions of the Civil War which soon broke out, of foreign intervention and mounting sabotage by the counter-revolutionaries, the Soviet Government was compelled to go over without delay from workers' control to direct nationalisation of the economy. Nationalisation is a historically necessary and inevitable process of socialising the means of production in conformity with the social nature of the production process itself. In Russia, however, nationalisation was accelerated by the sabotage of the bourgeoisie and the country's economic plight. Private banks which frequently financed the counter-revolutionaries were nationalised. A single State Bank, set up at that time, became the monopoly agency for financing the economy and for exercising banking control over all economic activity in the country.

A decree nationalising more than 1,000 joint-stock and other large enterprises in various branches of the economy was issued in June 1918. Declaring these enterprises the property of the Republic, the Soviet Government allowed the former owners not only to manage the nationalised enterprises as hitherto, but also, if they financed them with their own resources, to receive all incomes on the old basis. Only one thing was demanded of them—to operate the establish-

ments within the bounds of the general state plans for production and distribution of goods. But these attempts of the Soviet Government to reconcile the interests of private capital with the requirements of a rational planned economy in the complex conditions of Civil War, were not successful. Many former owners, far from willing to perform conscientiously the work offered them, sought to undermine the country's economy and participated in counter-revolutionary activity. Naturally, such people had to be replaced by specialists loyal to the Soviet state and workers who passed through the school of workers' control.

The Supreme Economic Council, set up in December 1917, was the first central state body for directing the economy of the young Republic. It exercised direct guidance of the state economy and was the first planning centre of the country. As early as the beginning of 1918, the Supreme Economic Council drafted plans for key industries. Those were very modest plans indeed. They called for an annual production of 5-6 million tons of coal, 1-1.5 million tons of pig iron and 1.5 million tons of steel. The tremendous progress of the Soviet Union since the first years of the revolution is eloquently illustrated by the following comparison. Today the USSR produces annually more than 500 million tons of coal, about 60 million tons of pig iron and over 80 million tons of steel.

Nationalisation of large-scale industry, transport and communications in 1918 and establishment of state foreign trade monopoly greatly extended the sphere of state management.

Foreign intervention, Civil War, economic dislocation and acute shortage of consumer goods and production resources dictated stringent centralisation and a certain restriction of the independence of enterprises and of local economic agencies.

The supply of enterprises with raw materials and fuel, as well as the distribution of finished goods were strictly centralised.

At that time, such an organisation of management was the only possible and correct one. It enabled the state to concentrate production at the biggest enterprises and rationally distribute the very meagre material resources of the young Soviet Republic.

After the Civil War and the defeat of the intervention the New Economic Policy was introduced. Its main purpose was swiftly to restore and advance the economy through maximum stimulation of public and private economic initiative. The utmost use of the market, trade and money circulation in advancing the economy called for more flexible forms of industrial management. It became necessary to give up excessive centralisation of management, enhance planned guidance of the economy, and at the same time stimulate the creative activity of the working people.

This period in the history of the Soviet economy was marked by free competition on the market of all forms of public and private economy. In view of the acute goods shortage, small private industry and trade had full opportunity to sell their goods at speculative prices, exceeding the fixed prices of state industrial and trad-

ing enterprises, and swiftly grew. The Soviet Government, encouraging this growth, even partly denationalised the formerly socialised small enterprises. Moreover, big private foreign capital was given access to the country along concession lines. Thus, private initiative received the opportunity to display all its advantages in economic competition with the state sector of the Soviet economy. But these "advantages" proved to be quite ephemeral; private initiative did not pass the test, and the socialised economy proved more viable than the private economy in all sectors. The generally recognised advantages of large-scale production and trade led in the USSR, as in the rest of the world, to one result: in market competition the large enterprises ousted and absorbed the smaller ones. Although private industry and trade in the USSR grew rather swiftly in the early 1920s, trade turnover of the socialist sector grew much faster. When the goods shortage began to disappear and private manufacturers and tradesmen had to adapt their prices to the level of state prices, private trade stopped growing and by 1931 its operations were reduced practically to zero. The share of private industry declined to 12 per cent in 1928 and in 1933 it shrank to less than 0.5 per cent of all industrial production. Large foreign concessions also did not develop in the USSR. Thus, the economic superiority of socialised enterprises was demonstrated very distinctly. It resulted in the complete ousting of private trading and industrial capital.

Before completion of this process, planning in the USSR could not be fully effective. The

existence of a considerable private sector in small-scale industry and trade made it necessary to combine direct planning of the operation of state enterprises with indirect influence on the private sector by methods of economic policy. Such influence was exercised above all by a definite policy of market prices and state purchase prices, by appropriate credit and taxation measures .

FIRST NATIONAL ECONOMIC PLANS

The experience of the Soviet Union shows that at the first stage of planning it is impossible to have the plan cover all sides of economic life, to draw up a detailed plan dovetailing all links of social production. Up to 1925, current (annual) planning covered only separate sectors of the economy. Special attention was given to the key industries: fuel, steel, chemical, textile and sugar. These plans were tentative and not sufficiently consistent. The first national economic plan was drawn for the 1925-26 economic year (the economic year began on October 1). For the first time it coordinated production and consumption.

Agriculture, the largest sphere of material production at that time, was the hardest to plan. Although the land was nationalised, there were more than 20 million small peasant households in the country. There was no possibility whatsoever to formulate a plan for this mass of scattered producers. That is why at that time the Soviet state confined itself to economic measures de-

signed to regulate agricultural production. By raising or lowering state purchase prices of some or other farm products, promoting the most labour-consuming crops by concluding in advance contracts for the purchase of the harvest, supplying machinery, fertilisers and consumer goods in the first place to major agricultural areas, the state thereby exerted definite influence on agricultural production. Cooperatives (credit, sales and supply) were widely utilized to help the peasantry. A big part was also played by large state farms, state and cooperative machine-renting stations, pedigree livestock and seed-growing farms.

The establishment of the State Planning Committee (Gosplan) in 1921 was an important stage in organising national economic planning in the Soviet Union.

The organisation of planned management of the country's economy promoted economic progress. In 1926 the pre-war (1913) level of industrial production was surpassed and prerequisites were created for undertaking extensive plans of socialist industrialisation.

Naturally in the first Soviet years special attention was paid to current production plans. The main task was swiftly to revive the country's wrecked economy. But as early as 1920 Lenin put forward the idea of drawing up a long-term plan. "It is impossible to work," he said, "without having a plan designed for a long period and for serious accomplishments." It was during this period of the severest economic breakdown in the Soviet land, that the country's first long-term plan was drawn up. It was a plan for the

electrification of Russia, designated for 10 or 15 years. It came to be known for short as the GOELRO Plan.

The authors of the GOELRO Plan were faced with an intricate task. They had to devise a way of drafting an economic programme fundamentally new in content and methods, a programme which determined the main trends of the country's economic development for 15 years ahead. The solution of economic problems required a truly creative approach because the old had been demolished and the new was still in the process of emergence. The authors of the plan visualised the full importance of the task and the difficulties of carrying out the targets of the electrification plan. But at the same time they were fully aware that the policy of patching up things and concentrating on pressing matters could not bring about a serious advance of the economy.

The electrification plan called for building 30 district electric stations with a total capacity of 1,500,000 kw, which was to reach 1,750,000 kw in 15 years. Although the name of the plan was associated only with electrification, in reality it was a general plan for development of the economy, providing for expansion of the key branches of heavy, light and food industries.

The GOELRO Plan set the main guide-lines for transforming the backward economy of Soviet Russia. It was a programme document determining economic policy for many years. It was drawn up in great detail and thoroughly substantiated. For example, it was calculated that to build 30 electric stations 6 million barrels of cement, 150 million bricks, 8 million poods of

sectional iron and 2.5 million poods of copper would be needed.

Some people abroad scoffed at the first Soviet long-term plan, dubbing it "electri-fiction." But history cruelly mocked at these critics. The electrification plan was exceeded three times over in the period set for its accomplishment.

After 1928, the economy of the Soviet Union began to develop on the basis of five-year plans.

FIVE-YEAR PLANS OF THE SOVIET UNION

The first Five-Year Plan (1928/29-1932/33) was a programme for laying the economic foundation of socialism. It set big tasks in the transition to the direct building of socialist society. The plan was born amidst a keen political struggle, reflecting different approaches to socialist construction, by the "Left" and "Right" deviationists.

The main propositions underlying the Five-Year Plan were drawn up by the 15th Congress of the Communist Party, and the optimum variant of the plan was approved by the 16th Party Conference and then endorsed by the 5th Congress of Soviets of the USSR (May 1929). The first Five-Year Plan provided above all for the utmost development of heavy industry. It received 78 per cent of all capital investments in industry. On the call of the Communist Party, mass socialist emulation to carry out the Plan was launched throughout the country. Fulfilment of the main targets of the plan sharply altered the pattern of social production. The share of the socialist sector in the national income rose to

93 per cent, as against 44 per cent in 1928. The share of industry in the economy exceeded 70 per cent. As many as 1,500 industrial enterprises were built and commissioned. Production of consumer goods increased by 156 per cent in the five years.

The first Five-Year Plan was also associated with fundamental changes in agriculture. Those were years of rapid collectivisation which embraced more than 60 per cent of the peasant households. The share of the socialist sector (state farms and collective farms) in the entire cultivated area reached 76 per cent in 1932, as against the plan target of 17.5 per cent. The share of the socialist sector in grain production for the market increased to 84 per cent as compared to 43.6 per cent under the plan.

Enhancement of the economic role of the socialist sector in town and countryside called for essential changes in the methods of planned guidance of the economy. Beginning with 1931, instead of the control figures previously used, annual national economic plans were drawn up. Economic plans of enterprises with a breakdown by quarters were drawn up on the basis of the annual state plans.

The credit reform of 1930-1931, replacing commercial credit by single State Bank credits, played an important part in the development of the entire planning system.

The economic achievements scored as a result of the fulfilment of the first Five-Year Plan made it possible to put forward as the main political tasks of the second five-year period (1933-1937) the building of socialist society and the final

abolition of capitalist elements.

The second plan provided for completing the technical reconstruction of the entire economy. The problem of training personnel, emerging from the wide introduction of new technology, was an important task of the second plan. The deep-going social changes which occurred during this period can be judged by the fact that by the end of 1937 state and collective farm co-operative property accounted already for 98.7 per cent of all the productive assets in the country.

The methods of elaborating the second Five-Year Plan were distinguished by greater detail and the fact that the assignments were broken down not only by departments but also by Union Republics and economic areas. Balanced calculations were further developed. This was directly linked with the differentiation of industries and the development of inter-sectoral ties. The importance of technical rates and technical and economic substantiations and calculations was enhanced. But the level of technical rate-setting was not high and experimental statistical rates prevailed in planning. These rates no longer conformed to the new, higher technical level of production and much work to revise them was needed.

In addition to strengthening the binding nature of the state plans, measures were taken during the second Five-Year Plan to strengthen cost accounting. Wholesale prices of industrial goods were properly fixed, and higher contract prices for raw cotton were set. At the same time planning at factory level was considerably im-

proved. Factories began to draw up technical, production and financial plans, that is, comprehensive plans covering both the direct production process and the economic and financial aspects of their operation. All this made it possible to apply greater effort to achieve higher performance. Beginning with the second Five-Year Plan, the indicators of labour productivity growth and reduction of production costs were included in the plan. The targets of the second Five-Year Plan were successfully fulfilled. Labour productivity in industry increased 82 per cent instead of the planned 63 per cent. Power consumption per worker was 5,700 kwh in 1937, the target being 5,300 kwh.

Agriculture received 512,200 tractors (in terms of 15 h.p. units) and 123,500 combines. At the end of 1937, agriculture had 558,600 tractors and 138,200 combines. The grain crop in 1937 amounted to 7,344 million poods as against the planned 6,398 million poods. The average grain yield was 1.15 tons per hectare as compared with the planned one ton.

During the second five-year period, 26.8 million square metres of new housing were commissioned.

The third Five-Year Plan (1938-1942) envisaged the further development of production and marked the Soviet Union's entry into the period of completing the construction of socialism.

New methodological and economic problems came to the fore when drawing up the third Five-Year Plan. Special attention was given to the comprehensive development of the country's main economic areas. Ways were outlined for

the more rational location of enterprises, so as to bring industry closer to the consuming areas and raw material sources.

The third Five-Year Plan called for a huge construction programme. Capital investments in the economy were set at 19,200 million roubles.¹ The value of new and reconstructed enterprises to be commissioned was 19,300 million roubles, as against 10,300 million roubles in the second plan.

In five years industrial output was to increase 92 per cent, national income was to be doubled and per capita consumption was to rise by 50-100 per cent. Much attention was given to technological progress and the development of such branches as the manufacture of chemical machinery and high-test metals.

During the first three years of the third plan about 3,000 new industrial enterprises were commissioned.

The attack of fascist Germany on the USSR interrupted the peaceful labour of the Soviet people and inflicted colossal harm on the economy.

Planned economy had demonstrated its advantages over the capitalist system in the pre-war years, but the planning system faced its most gruelling test during the Second World War, and passed it with credit. Planned economy demonstrated its high mobility. All production was speedily regearred to meet the

¹ All figures are given in the new money introduced as of January 1, 1961.

demands of war. Special war-time economic plans for development of industry in less vulnerable areas were drafted. Despite destruction and occupation of the largest industrial centres in the South and the central areas, a precise system of material supply was organised. A war economy which supplied the front with modern weapons and necessary materiel was built up on the basis of thoroughly elaborated plans. This was an important factor making for the Soviet Union's victory over fascist Germany.

A Five-Year Plan for the restoration and development of the economy in 1946-1950 was drawn up in 1946. It called for increasing industrial output by 48 per cent, as compared with the pre-war year 1940. This target was topped by a big margin: industrial output in 1950 was 73 per cent greater than in 1940.

The pre-war level was achieved and surpassed in total industrial output in 1948; coal production in 1947; steel and cement in 1948; iron and oil in 1949 and cotton textiles in 1951.

More than 6,000 large industrial enterprises were restored, built and commissioned during the fourth Five-Year Plan.

Technical facilities of agriculture were greatly extended. In 1950, the tractor fleet in agriculture (in terms of 15 h. p. units) increased to 933,000 as compared with 684,000 in 1940, and the number of grain combine harvesters reached 211,000 as against 182,000.

The restoration and development of the economy after the war was achieved by the utmost mobilisation of country's internal reso-

urces. A high degree of centralisation in planning was characteristic of the first postwar years. The monetary reform in 1947, which made it possible to strengthen the rouble and enhance the economic stimuli of production, was among the major economic measures of that period.

While in the restoration period main emphasis was laid on rebuilding enterprises destroyed during the war, in subsequent postwar years the main source for expanding production was the commissioning of new capacities. From 1951 to 1960, the fixed assets of the Soviet Union rose 2.3 times and in 1960 were 2.7 times greater than in 1940. At present the USSR holds first place in Europe and second place in the world in industrial output. While before the First World War Russia's industrial production was only one-eighth of that of the United States, in 1963 Soviet industrial output was about 65 per cent of the American. With each passing year the gap in industrial production between the Soviet Union and the United States is shrinking and in a number of goods the USSR has already surpassed the American level—for example, woollen fabrics, butter, sugar, fish, sawn timber, prefabricated reinforced concrete elements, iron ore, coal, electric and diesel locomotives and metal-cutting machine-tools. In 1962, Soviet steel production was 80 per cent of the American level, while in 1955 it was only 42 per cent.

In the last ten years the national income of the Soviet Union has risen 2.3 times. Real incomes of the people (per employed person) during this period rose by 120 per cent. Between

1954 and 1963, gross output of industry increased by 170 per cent and of agriculture by 61 per cent. Capital investments in the last ten years have amounted to 307,000 million roubles, as compared with 147,000 million roubles in all preceding Soviet years (from 1917 to 1953). During these ten years 8,570 large industrial enterprises have been commissioned.

The Soviet Union today has no equal for the scale of housing construction. As many as 118 million people or more than half of the population moved to new homes or improved their housing conditions from 1954 to 1963.

Cash incomes of the people are growing at a fast pace. In the last five years wages and salaries of those engaged directly in the productive sphere have risen from 13 to 25 per cent.

In addition to the pension system for factory and office workers, a single system of pensions for collective farmers was introduced as of January 1, 1965.

A centralised fund has been set up out of deductions from collective farms' income and annual state subsidies to pay pensions and other grants to collective farmers. The granting of pensions to collective farmers has completed a system of pensions for all working people of the country.

The Soviet people have achieved all these gains by developing their economy on the basis of plans.

The Soviet Union has entered a new period in its development, a period of full-scale building of communist society. The main task of

this period is to lay the material and technical basis of communism, to ensure a tremendous growth of the country's economic potential, and to give the population of the Soviet Union the highest living standards in the world.

PLANNING IN OTHER SOCIALIST COUNTRIES

After the Second World War a number of European and Asian countries embarked on the road of socialist development. Naturally these countries have made their contribution to planning, too, and, like the Soviet Union, continue to improve the system of planning.

The planning systems in these countries and in the Soviet Union are based on similar socio-economic conditions of production, which predetermine the organisational community of these systems; but the existence of common features does not preclude distinctions in planning in each socialist country.

In the initial period of people's rule in these countries economic development plans were drawn up only for one, two or three years. For example, in 1947 three-year plans were launched in Poland and Hungary and two-year plans in Bulgaria and Czechoslovakia. In 1949, Rumania undertook to carry out her first national economic development plan for one year. The German Democratic Republic drew up a two-year plan for 1949-1950. The main tasks of the first economic plans in the People's Democracies were the restoration of the war-wrecked

economy. At the same time they were laying the foundations of a socialist economy.

Poland's three-year economic recovery plan (1947-1949) embraced all branches of the economy. It included targets for industry, agriculture, transport, construction and also branches of the non-productive sphere: education and culture, public health and social security. The plan called for an increase in the national income and consumption. But the plan lacked assignments for development of technology and reduction of production costs owing to insufficient experience in planning. Poland's three-year plan was completed in two years and ten months. The country's economy was restored in the main and the living standards of the people exceeded the pre-war level.

Hungary's three-year plan of economic restoration and development for 1947-1949, elaborated by the Hungarian Communist Party, was approved by the National Assembly and came into force on August 1, 1947. Its implementation began at a time when capitalist elements still preserved strong positions in the economy. The Commercial, Credit and Discount Banks, the country's three leading banking institutions, were not then nationalised. The state had under its jurisdiction only large enterprises of heavy industry and an insignificant number of smaller factories. All this essentially restricted the scope of the state plan and created difficulties in its fulfilment. Planning in that period was marked by strong centralisation. After nationalisation of the banks at the end of 1947 and gradual nationalisation of industrial enterprises,

transport and trade, the people's government control over the economy increased and this created conditions for fulfilment of the three-year plan.

The Hungarian people completed it in two years and five months. Gross agricultural production nearly reached the pre-war level. Successful fulfilment of the three-year plan furnished the requisites for industrialisation of the country and socialist transformation of agriculture on the basis of long-term plans.

In Bulgaria the two-year plan (1947-1948) envisaged economic recovery and a growth of industrial and agricultural production. Since nationalisation of industry and the banks proceeded while the plan was being carried out, it naturally could not be comprehensive.

Czechoslovakia's first plan for economic restoration and development (1947-1948) covered only major industries. Its most important section was the planning of capital investment, primarily in industry and transport. Lack of experience and difficulties of the restoration period prevented regulation of wages and prices, planning of production costs and elaboration of financial plans. The balance method was utilized in drafting the plan, which made it possible to coordinate the scale of production with the necessary investments.

Rumania's economic development plan for 1949 consolidated the victory of people's democracy and new social relations. Its main aim was the restoration of heavy industry, especially engineering. The plan also had assignments for increasing the output of light and food indust-

ries, developing agriculture and raising the people's living standards.

Formation of the German Democratic Republic made it possible to go over to planned guidance of the economy in that country. The first two-year plan was drawn up for 1949-1950. Its main aim was to restore the economy on the basis of the priority development of heavy industry, so as to eliminate subsequently the disproportions in the economy resulting from Germany's division. The plan covered industry, agriculture, capital investments, development of technology and growth of personal and public consumption.

Successful fulfilment of the economic plans enabled the People's Democracies to regain quickly the pre-war level, and in some cases to exceed it. A socialist sector was established and consolidated in all these countries; new industries were built up, capital construction launched and the living standard improved. Considerable achievements were scored in raising labour productivity, cutting costs, introducing cost accounting and the socialist system of remuneration. Fulfilment of the first plans provided the conditions for transition to long-term plans.

The first long-term plan in Poland was the six-year plan for economic development and building the foundations of socialism (1950-1955). Its main task was to create large-scale socialist industry to serve as the basis for developing all sectors of the economy and raising the people's living standard.

Subsequently, Poland drew up five-year plans for 1956-1960 and for 1961-1965. The 4th

Congress of the Polish United Workers' Party adopted directives on the country's economic development in 1966-1970. In addition, there are also outlines for a general plan up to 1980.

In Czechoslovakia long-term planning started with the five-year plan for 1949-1953. In 1954 and 1955, there were annual plans. The second five-year plan was for 1956-1960, and the third, for 1961-1965.

Bulgaria's first five-year plan (1949-1953) was completed ahead of time. The second five-year plan was for 1953-1957. The third plan (1958-1962) was completed in 1960 and in view of this the fourth plan was drawn up for 1961-1965. Moreover, Bulgaria has elaborated the basic principles for a 20-year plan up to 1980.

In Rumania the first five-year plan was drawn up for 1951-1955 and the second, for 1956-1960. The 3rd Congress of the Rumanian Communist Party adopted a six-year plan for 1960-1965. The 9th Congress of the Rumanian Communist Party approved directives on economic development for 1966-1970 and directives on utilisation of power resources and the country's electrification in the next ten years.

Hungary's first five-year plan was drawn up for 1950-1954. In 1955 and 1956 there were annual plans. In view of the mistakes in economic policy and wrong planning during this period and also to eliminate disproportions in the economy and the consequences of the counter-revolutionary rebellion, a three-year plan was elaborated for 1958-1960. Hungary has completed a five-year plan (1961-1965).

In the German Democratic Republic the first

long-term plan covered the period from 1950 to 1954; the second five-year plan, a continuation of the first, was for 1954-1958. In 1959 a seven-year economic plan for 1959-1965 was adopted. Its aim was to complete the building of socialism through maximum growth of labour productivity in all sectors on the basis of steady scientific and technological progress. The Republic is seeking to make the utmost use of available raw material and power resources.

The Political Bureau of the Central Committee of the Socialist Unity Party of Germany and the Presidium of the Council of Ministers of the German Democratic Republic adopted in 1964 directives on the elaboration of a long-term national economic development plan of the Republic up to 1970. This is a programme for the full-scale building of socialism. Its aims are to effect a technological revolution and introduce a new system of planning and managing the economy with the object of strengthening the material basis of socialism and improving the working and living conditions of the people.

Long-term five-year plans also underlie the economic development of the Chinese People's Republic, the Mongolian People's Republic and other Asian socialist countries.

The Cuban Republic too has started socialist planning.

The close economic ties among the socialist countries have determined the need for coordinating their economic plans. This is done in various ways. A big part in this respect is played by the Council for Mutual Economic Aid (CMEA). For the first time a decision to coordinate long-term

plans of CMEA member-countries was adopted at the 4th session of the Council in 1954. On the basis of this decision, in 1955 member-countries coordinated their plans for 1956-1960 and in 1960, for 1961-1965. CMEA agencies and member-countries are completing work on coordinating the national economic development plans for 1966-1970. CMEA member-countries seek to make the periods of their long-term plans coincide. This is prompted by practical considerations of coordinating the projects of each country with projects of the other members of the socialist community.

Coordination of long-term plans of CMEA countries is the highest form of economic cooperation between socialist states. The planned balanced division of labour within the world socialist system makes for better use of the resources of each country, for higher quality of output and reduction of costs on the basis of specialisation (which is of particular importance in engineering). Thereby socialist planning acquires new features; it emerges beyond the bounds of individual socialist countries, and becomes a means for pooling their efforts in building the new society.

High economic growth rates and above all faster growth of industry are a characteristic feature of the long-term plans of the socialist countries.

Industrialisation of socialist countries is manifested in the systematic increase of the share of industrial output in the economy. From 1951 to 1964, industrial output in the socialist countries grew 11.7 per cent on the average annually.

which is more than double the growth rate in the capitalist countries. As compared with the pre-war level, industrial output in the socialist countries in 1964 rose 8.9 times, while in the capitalist countries it increased about 3.2 times.¹

Due to a high growth in the rates of production the socialist countries steadily raise their share in total world industrial output. In 1950, they accounted for about 20 per cent of world industrial production; in 1955, 27 per cent and in 1964, 38 per cent.

SHARE OF SOCIALIST COUNTRIES IN WORLD
PRODUCTION
(per cent)

| | 1950 | 1961 |
|----------------|------|------|
| Coal | 28.7 | 57.5 |
| Steel | 19.2 | 31.8 |
| Electric power | 14.9 | 22.0 |
| Cement | 15.8 | 30.0 |

The Soviet Union, according to estimates of economists in the fraternal countries, contributes about 70 per cent of the entire industrial output of CMEA countries.²

The USSR holds first place in the foreign trade of the socialist countries. From 1946 to 1963, Soviet trade with the other socialist coun-

¹ *Ekonomika stran sotsializma*, "Ekonomika" Publishing House, 1964, p. 15.

² Tibor Kish. *Economic Cooperation of Socialist Countries*. M., 1963, p. 278.

tries, in comparable prices, rose more than 10 times. The exchange of manufactured goods with the Soviet Union is of exceptional importance for the other CMEA countries.

The communique of the meeting of representatives of Communist and Workers' Parties of CMEA countries, held in June 1962, noted that "the successes of the world socialist system have been achieved thanks to the correct application of the general laws of socialist construction, taking into account the concrete distinctions of each country and the interests of the community of socialist states."

CHAPTER II

Experience of Capitalist Planning (Programming)

Soviet experience in economic planning influenced all countries, including capitalist states. In the 1930s, and especially during and after the last war, attempts to plan national economic development by elaborating economic growth programmes were undertaken in a number of capitalist countries.

PREREQUISITES FOR ECONOMIC PROGRAMMING

The development of capitalist programming has reflected the deep-going process of production concentration, greater social division of labour and more complex production ties. The gigantic

scale of production, based on modern technology and the unity of the numerous links of the national economy, demand adequate forms of production organisation and principles of economic management. "The development of mass production, technological progress and the expansion of exchange—all this has increased interdependence of enterprises. It is becoming increasingly more difficult for industrialist to take decisions because his success strictly depends on the general success." ¹ Contemporary capitalist production long ago ceased to be a private matter, it turned means of production into "*social* means of production, which could be used only by a *body of men as a whole*. . . And like the means of production, production itself changed from a series of individual operations into a series of social acts, and the products, from the products of individuals into social products. The yarn, the cloth, and the metal goods, which now came from the factory were the common products of many workers through whose hands they have to pass successively before they were ready. No individual can say of such products: *I* made it, that is *my* product." ² What was true eighty years ago when Engels wrote his *Anti-Dühring* is even more true today when the scale of production and complexity of production relations have immeasurably grown.

The social nature of production develops in conditions of private capitalist ownership which

¹ *La planification française, Notes et études documentaires*. Secrétariat général du gouvernement, No. 2846, 30 déc. 1961, Paris, pp. 4-5.

² Engels. *Anti-Dühring*, Moscow, 1947, pp. 398-399.

continues to exist. Marxists have always held that this is the basic contradiction of capitalism, because private ownership does not conform to the social character of production, and they see the way to resolving the contradiction in the creation of public ownership. The ways and methods of forming public ownership can be different—redemption, expropriation, mixed ownership, the building up of the infrastructure and new industries by the state, etc. The ways can be different, depending on the concrete historical conditions, but the process of origin of public ownership as such is inevitable.

The socialist countries have realised in practice this historical inevitability by socialising the sectors of the economy where the production process itself is of a social character. Capitalism, however, continues to develop on the basis of private property, limiting itself to various palliatives. The establishment of joint-stock companies, partial nationalisation and other processes are merely attempts to resolve this contradiction which cannot be resolved without removing its basis, private property. It cannot be asserted, of course, that all the partial structural changes effected within the framework of capitalism, are useless and completely ineffective. Such an assertion would not be entirely correct, but each disease should be cured by appropriate means, and, where surgical intervention is needed, thereby can only drag out and even complicate the disease.

Capitalist programming is one of the measures employed in an attempt to eliminate the contradiction between private ownership and the

social character of production. It arose first of all as programming within separate capitalist enterprises and associations. The formation of trusts and other forms of monopoly associations by itself already demanded the planned organisation of production within them. Lenin wrote in 1917: "...One could not continue to define capitalism as a system of production lacking planning. This is now out of date; once there are trusts there can no longer be lack of planning."¹ But programming within capitalist associations continued for a long time, while programming on a nation-wide scale was absent. The view prevailed that the free market was capable of discharging its functions in conditions of modern large-scale and highly specialised production. The necessity for national economic programming was denied all the more vehemently when the question of interference by the state was raised.

Capitalism entered the 20th century full of faith in the efficacy of market spontaneity, free competition and faultless operation of the *laissez faire* principle. The economic boom after the First World War reinforced the faith of economists and businessmen in the market forces. But then the gigantic economic hurricane, the world crisis of 1929-1933 broke loose, the post-war upswing of the capitalist economy ended in an unprecedented slump. The Great Depression scattered like a house of cards all the illusions about the mighty forces of "new" capitalism. The idea of the need for interference by the state in the economy, the need to formulate ge-

¹ Lenin. *Collected Works*, Vol. 24, p. 240.

neral national tasks swiftly spread in developed capitalist countries.

"The formulation of aims of policy," Tinbergen wrote, "became more necessary after the belief in *laissez faire* was given up. Before that time there was no need for planning, since it was believed that free economic forces would lead to the best development conceived. When this belief died it became necessary to formulate norms for optimum development."¹ "The severe unemployment of the early nineteen thirties undermined belief in the automatic capacity of the market system to maintain continuously high levels of employment, and the conviction spread that policies for full employment were a responsibility of the central authorities."²

The 1929-1933 crisis was at the same time a crisis of confidence in the capitalist system, its institutions and motive forces. J. M. Keynes, remaining on capitalist positions, gave classical expression to this crisis of confidence and formulated the ideological prerequisites which served as the source for the theory and practices of capitalist programming. He wrote: "It is certain that the world will not much longer tolerate the unemployment which, apart from brief intervals of excitement, is associated—and, in my opinion, inevitably associated with present-day capitalistic individualism. But it may be possible by right analysis of the problem to cure the disease

¹ J. Tinbergen. *Central Planning*, 1964, p. 43.

² *Planning for Economic Development*, p. 2.

whilst preserving efficiency and freedom.”¹ Moreover, Keynes pointed to the “vital importance of establishing certain central controls in matters which are now left in the main to individual initiative...”² He regarded these measures as a means for reinforcing the mainstays of the capitalist system. “Whilst, therefore, the enlargement of the functions of government, involved in the task of adjusting to one another the propensity to consume and the inducement to invest, would seem to a nineteenth-century publicist or to a contemporary American financier to be a terrific encroachment on individualism, I defend it, on the contrary, both as the only practicable means of avoiding the destruction of existing economic forms in their entirety and as the condition of the successful functioning of individual initiative.”³

We shall not discuss here whether similar recipes can help capitalism resolve its main contradictions. We shall merely note that Keynes’s ideas most fully embody the disbelief in *laissez faire* and serve as a theoretical basis for all subsequent capitalist programming.

The practical results of programming proved quite insignificant in the period after the Great Depression and up to the Second World War. They were expressed mainly in the establishment of various research organisations, which have been preserved to our day, for example, the

¹ J. M. Keynes. *The General Theory of Employment, Interest and Money*, MacMillan and Co., London, 1936, p. 381.

² *Ibid.* pp. 377-378.

³ *Ibid.* p. 380.

American Planning Association. The pre-war period was merely the pre-history of capitalist programming.

After the Second World War almost all the developed capitalist countries went over to wide state interference in the economy and programming various aspects of economic advance. Three main factors explain the swift development of this process.

First, militarisation of the economy during the war and the maintenance of state purchases of armaments and the military expenditure in general after the war at a level unusually high in peacetime; second, the wave of nationalisation which affected many advanced capitalist countries; third, the growth of state investment in the development of new industries, research work and personnel training. The first factor played a particularly important part in the United States and the second—in France, Italy, and Britain.

Nationalisation of separate industries, transport and credit made their direct regulation by the state necessary. Moreover, the higher the share of the nationalised sector, the greater the need for economic development programmes. This is demonstrated above all by the example of France.

In pre-war France nationalisation was limited to railways (1936-1937). The first postwar years witnessed a broad wave of nationalisation. Coal, gas and electric power industries, a number of banks, insurance companies and the Renault Automobile Company were nationalised in 1945 and 1946. France has now three types of

state ownership: national societies—Gaz de France, Electricité de France, Charbonnage de France, Banque de France, and others; administrative boards (Commissariat for Atomic Energy, administrations for the post, telegraph and telephone, tobacco and match industry, production of nitrogen, potassium salts, etc.); societies of a mixed economy, including Compagnie Française de Pétrole.

State enterprises prevail in electric power, oil and gas industries, transport, finance, automobile and aircraft industries. State participation in mixed companies is estimated from 1,000 million to 1,500 million old francs. The state sector of industry produces 97 per cent of the coal, 80 per cent of the electric power, 95 per cent of the gas, and 80 per cent of the output of the aircraft industry and 40 per cent of the output of the automobile industry. The state finances the atomic industry and participates to the extent of from 35 to 40 per cent in all the capital of the oil companies.¹ The state owns in France 35 per cent of the basic capital of firms in industry, 50 per cent in power and 30 per cent in transport and communications.²

In Britain about 20 per cent of the industry is state-owned; 14.7 per cent of all factory and office workers (in 1955) were engaged in the state sector.³

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 9, 1960, pp. 67-68.

² P. Bauchet. *Propriété public et planification*, Editions Cujas, 1962, p. 31.

³ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 11, 1960, p. 68.

In Italy the state sector and a mixed economy sector exist in almost all industries. The nationalisation idea is reflected in the 1947 Constitution of Italy. In the Netherlands, the nationalised sector includes the power industry (except the oil industry); it exists in the chemical industry and extends to transport and communications. Even in West Germany, which so far is the domain of the so-called free economy, the share of state and mixed enterprises was as follows in 1957: coal, 25.7 per cent; lignites, 88 per cent; iron ore, 50.6 per cent; aluminium, 72.1 per cent; motor cars, 41.9 per cent.¹

Capital investment of the state (in relation to the total sum), according to figures of the survey of the UN Economic Commission for Europe, was as follows in 1957: Britain, 32 per cent; Austria, 27 per cent; Italy, 27 per cent; France, 25 per cent; Sweden, 15 per cent; the Netherlands, 13 per cent; Norway, 14 per cent.²

The growing share of the national budget in the national income is one of the most important phenomena in the last 20 years, attesting to the ever-greater regulating role of the state in developed capitalist countries. In France, for example, 14 per cent of the national income passed through the budget in 1913, while in 1956 the figure rose to 40 per cent.³

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 11, 1960, p. 68.

² *Economic Survey of Europe in 1959*, U. N., Geneva, 1960, Ch. V, p.3.

³ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 9, 1960.

PRACTICAL EXPERIENCE

The development of production, together with the process of nationalisation and a number of other factors thus has led capitalist states to the need for compiling economic programmes on national scales. In the period after the Second World War, many advanced capitalist countries, first of all in Western Europe, undertook to draw up short-term and long-term economic development programmes. It is interesting to note that at times opposite political forces contributed to this process. Whereas economic programmes were considered as a means of smoothing over the sharpest contradictions in production, marketing and distribution of incomes by the ruling classes, the working people regarded these programmes as a stage to structural reforms, as a method of influencing economic development in the interest of broad sections of society. That is why an acute struggle flared up from the very outset between Left political forces for a democratic alternative in the sphere of economic programming, while the monopoly groups have utilized, and are utilizing, programming in their own interests.

Economic programming has taken its first steps in Western Europe under great influence of political parties of the working class. "The idea of planning was, of course, in the air in France at the Liberation. Not only was the administration attuned to the controlled economy of the war years, but members of the Government (which was the most Left-wing postwar France has known, comprising as it did nume-

rous Communist ministers), were favourable to planning. Also, the programme of the National Liberation Committee, the central organisation of the Resistance Movement, called for the elaboration of the plan.”¹ Pierre Massé, the first Commissioner-General for the plan also pointed to the progressive historical roots of French planning. “In 1945 the planning of economic activity was desired by various circles. The wind of reform which swept over France brought with it the idea of nationalising key sectors, and of a plan to take the place of market mechanisms which had failed to remedy social and economic aftermath of the great depression of the 1930s. In those days the political affiliation of the ministers reflected that dominating tendency.”²

The biggest practical experience has been accumulated in France which is rightly regarded as the country of classical capitalist programming. Four-year plans have been elaborated in France and at present a five-year plan is being drafted. The first plan (from 1946-47 to 1952-53), known as the Monnet Plan, provided for concentrating resources on the development of basic sectors—coal, electric power, steel, cement, farm machinery and transport. The aim of the plan was to restore and give priority to the development of branches which make up the “skeleton” of the economy. The second plan (1954-1957) called for concentrating efforts on quali-

¹ I. Hacket, A. M. Hacket. *Economic Planning in France*, London, 1963, pp. 25-26.

² PEP *Economic Planning in France*, August 14, 1961, p. 211.

tative results, the development of scientific research and technological studies, specialisation of enterprises, training of personnel and organisation of the market. The third plan (1958-1961) laid claim to being the first general plan of economic development which includes production, money circulation, foreign payments and ties with the Common Market. The fourth plan (1962-1965) was a plan for accelerating economic growth rates and making changes in the sectoral structure. A desire for effectively balancing economic development underlies the new five-year plan for 1966-1970. We want to point to the consistency and purposefulness in the work of the General Planning Commissariat and other French organisations engaged in planning. The results of this work may be criticised, but must not be underestimated. French planning is a reality exerting a definite influence on the course of the country's economic development.

While French programming in conditions of the capitalist economy is considered a model of practical experience, the Dutch programme is called a model of theory which, incidentally, is combined with considerable practice. The results of Dutch programming are the "First Memorandum on the Industrialisation of Holland" (1948-1952), the 20-year forecast (1950-1970) and also the annually formulated plans and forecasts. The high precision of the apparatus utilized in compiling the plans and forecasts advanced Holland to first place among the Western countries in this respect. True, the economic content of the Dutch plans is much more limited than the French. Their purpose is to achieve

a balancing of the economy without any serious interference in its structure.

Italian national plans compiled in rather general indicators pursued political sooner than economic aims. They were not connected with the annual budgets and in the main expressed the political platform of the ruling Christian Democratic Party. The Vanoni Plan (1955-1964) was a plan of this kind.¹ A new national plan for 1965-1969 has been drawn up in Italy.

Britain was one of the first to take the road of nationalisation, nationalising the coal industry after the war. But the experience of British national economic planning is rather modest. The first attempt was the drawing up of five-year plan for 1962-1966. This plan is strictly in the nature of recommendations, it is not connected with any concrete economic instruments and measures, and it can be assessed only as the first approach to problems of national planning. The main purpose of this plan was to increase the growth rate of the national income to 4 per cent in 1962-1966. In the preceding ten years it was 2.5 per cent. How was this increase in rates to be achieved? R. Shone, chairman of the National Economic Development Council, said that the plan compilers counted chiefly on the psychological impact of setting this aim.²

The Scandinavian countries, Sweden, Norway and Denmark, should also be mentioned

¹ "The Vanoni Plan for the Economic Development of Italy," *International Labour Review*, Vol. LXXI, No. 6, June 1955.

² *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, 1965, No. 3, p. 85.

among developed capitalist countries where economic programming has made certain headway. The report of the Secretariat of the U.N. Economic and Social Council¹ on the compilation of programmes and planning of industrial development mentions Japan, along with France, among the developed capitalist countries whose experience was most effective. The most important results of Japanese planning were the five-year plan drawn up in 1956 and the ten-year plan for doubling the national income, known as the Ikeda Plan and adopted in 1960. The main tasks of the latter have been formulated in the report of the Sub-Committee of the Economic Planning Office as follows: "The Ikeda Plan provides for doubling the national income and a simultaneous advance in the living standard of the nation, the swiftest possible approach to full employment, elimination of the gap in incomes, etc. A sound development of industry, this main core of economic growth, is needed for the achievement of all these aims."² We shall subsequently show how these aims are achieved, but mention should be made of the fact that, despite the rather high level of Japanese planning it proved incapable of even approximately estimating and controlling the spasmodic and at times feverish growth of the country's economy.

The United States has contributed much to capitalist programming in theory, especially in econometric studies, and much less in practice.

¹ U. N. Economic and Social Council, E/c. 5/30, April 19, 1963, p. 5.

² Quoted after *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 6, 1964, p. 54.

The role of state ownership in the US economy is insignificant and the interference of the state in the country's economy is effected not through national planning but mainly with the help of financial instruments: the budget, taxation, credits, discount rates and prices. In fact, there is not a single document bearing the nature of a national plan in the United States. But there are sufficiently detailed long-term forecasts, that is, attempts to predict the state of the economy at the end of the period under consideration if it develops in keeping with emergent tendencies. Outstanding among such is the forecast of the development of the United States up to the year 2000.¹ Its distinction consists in the use of empirical rows instead of functional dependences. Notwithstanding the thoroughness of the forecasts for 1980 and 2000 these materials cannot be regarded as national plans. They are merely a forerunner to an economic programme, but not yet a programme itself.

Organisations which draw up plans and forecasts have been set up in France, Britain, Holland, Sweden, Norway and other countries. The General Planning Commissariat in France is the most competent and well known of these agencies. The Central Planning Bureau (Holland), Economic Planning Department (Norway) and National Economic Development Council (Britain) perform more limited functions. A characteristic feature of these agencies is their semi-

¹ H. Landsberg, L. Fischman and J. Fischer. *Resources in America's Future. Patterns of Requirements and Availabilities. 1960-2000*. Baltimore, The John Hopkins Press, 1963.

official consultative status, except the French General Planning Commissariat. This is fully in line with the contradictory role national planning is playing in conditions of private ownership.

Even a mere enumeration of the various attempts to draw up national plans, economic programmes and prognoses in capitalist countries, attests to the practical needs of contemporary capitalist production in centralised regulation.

RESULTS

The compilation of national economic development programmes is merely the first step to real planning. Ultimately the meaning and purpose of planning is to influence practically the development of the economy. This is the test of the reality of plans and their effectiveness.

It is very difficult to assess this influence in capitalist states. While in the socialist economy almost all successes and difficulties of development are directly connected with planning because it is of a directive nature, under capitalism it is impossible to divide the influence of the plan and the operation of the market, the more so since the plan is subordinated to the market. At times "the great stability of the Dutch economy" is held up as "a proof of planning efficiency."¹ But West German economists could

¹ S. Wellisz. "Economic Planning in the Netherlands, France and Italy," *The Journal of Political Economy*, Vol. LXVIII, June 1960, No. 3, p. 266.

claim with equal right that the high and stable growth rates of their economy are a result of the highest possible free operation of the market, not hampered by any planning. That is why the assessment of the efficiency of capitalist programming is purely relative.

Let us present calculations of the stability of industrial growth rates for 1954-1963, using the coefficient of variation.¹ The coefficient of variation is the ratio of the standard variation to the mean value of the attribute. The mean value in our case is the average annual rate of growth. The smaller the coefficient, the less the amplitude of fluctuations in the given totality. In our example this indicator characterises the stability of economic growth.

Data of the dynamics of industrial production in the principal capitalist countries attest above all to the fact that instability of growth rates and the alternation of a relative advance by a recession (for example, in 1957-1958) is inherent in almost all capitalist countries without exception. The annual growth rates and coefficient of variation also show that cyclical fluctuations in countries with developed capitalist programming (Italy, Norway, France) are mostly not as big as in countries where programming has not gone beyond the state of forecasts (Britain, the United States).

This, however, does not mean that the forecasts and plans are being realised. H. Theil, a

¹ Calculations presented by B. Dubson and A. Pokrovsky in *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 3, 1965, p. 89.

DYNAMICS OF INDUSTRIAL OUTPUT
(annual growth in percentage)

| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | Production growth between 1954 and 1959 | Average annual growth rate | Coefficient of variation (in per cent) |
|-----------------|------|------|------|------|------|------|------|------|------|------|---|-------------------------------------|--|
| Italy | 10.0 | 9.1 | 7.1 | 6.7 | 4.2 | 11.0 | 15.3 | 10.9 | 9.9 | 9.0 | 143.0 | 9.3 | 30.5 |
| Norway | 8.0 | 7.4 | 4.4 | 5.3 | 0 | 6.0 | 10.4 | 6.8 | 4.0 | 6.2 | 76.4 | 5.75 | 45.7 |
| France | 7.2 | 8.1 | 11.0 | 10.9 | 4.2 | 1.0 | 8.9 | 5.5 | 6.0 | 4.9 | 87.0 | 6.45 | 45.9 |
| West Germany | 12.1 | 14.9 | 8.2 | 5.4 | 3.1 | 7.0 | 11.2 | 5.9 | 4.8 | 3.0 | 106.1 | 7.5 | 50.8 |
| Japan | 6.7 | 7.8 | 24.6 | 15.1 | 1.0 | 24.0 | 25.8 | 19.2 | 8.1 | 9.0 | 265.0 | 13.8 | 60.7 |
| The Netherlands | 5.1 | 12.0 | 5.4 | 2.0 | 0 | 9.8 | 18.8 | 1.6 | 3.2 | 4.6 | 72.2 | 5.6 | 78.6 |
| Belgium | 5.8 | 9.9 | 6.0 | 0 | -5.7 | 4.0 | 6.7 | 4.5 | 6.0 | 5.7 | 51.2 | 4.2 | 81.4 |
| Britain | 5.6 | 5.3 | 0 | 2.0 | -1.0 | 5.0 | 6.7 | 1.8 | 0.9 | 3.5 | 33.7 | 2.95 | 97.1 |
| The USA | -5.2 | 11.2 | 3.9 | 0 | -6.5 | 13.0 | 2.7 | 0.9 | 7.7 | 5.6 | 37.1 | 3.2 | 189.0 |

Dutch economist, has calculated¹ in his time the deviation of forecasts in different countries from the actual results of economic development. He expressed it through coefficient which is the ratio between a) the standard deviation of the differences between the predicted and actual values, and b) standard deviation of the annual changes in the variables under consideration. The coefficient, consequently, reflects not only deviation of the forecast from reality, but also the relationship of the deviation to the actual growth. The lower ψ coefficient the more exact the forecast was. Calculation of coefficient ψ for the postwar forecasts of five European countries produced the following results:

| | Nether- lands | Britain | Norway | Sweden | Denmark | Average |
|------------------------|------------------|---------|--------|--------|---------|---------|
| Exports | 0.16 | 0.26 | 0.76 | 0.62 | 0.53 | 0.40 |
| Imports | 0.26 | 0.25 | 0.73 | 0.48 | 0.51 | 0.41 |
| Balance of payments | 0.48 | 0.52 | 0.76 | 0.71 | 0.73 | 0.63 |
| National product | 0.53 | 0.63 | 0.66 | 0.78 | 0.56 | 0.63 |
| Industrial output | 0.54 | 0.51 | 0.59 | 0.52 | 0.81 | 0.59 |

Thus, the magnitude of deviation of forecasts from reality exceeds the annual growth of the national product and industrial output

¹ H. Theil. "Who Forecasts Best," *International Economic Papers*, No. 5, London and New York, 1955, p. 194.

by half. The precision of forecasts is not high, to say the least. The Netherlands stands out in the table for its indices, which are much better than the average for the five countries. This once again shows that the level of Dutch forecasting and programming is quite high.

French programming is the most detailed; it relies on a large nationalised sector and utilizes various economic instruments for bringing the private sector in line with the national plan. But France, too, cannot serve as an example of close proximity of actual results to the plan. According to P. Bouchet, the recommendations of the Monnet Plan (1947-1953) were attained only a year after the expiration of its term. The authors of the plan predicted that in 1952 industrial output would increase 25 per cent (as compared with the 1929 level), while actually the growth was only 12 per cent.¹ On the whole, the plan for modernisation and re-equipment was not fulfilled for almost all indicators except oil refining, production of automobiles and cement. Percentage of plan fulfilment was as follows: coal, 96; electric power, 95; steel, 86; nitrogen fertilisers, 95; chemical fibres, 67; tractors, 63; housing construction, 16; cotton yarn, 77; woollen yarn, 79; farm machinery, 38 per cent. Industrial production as a whole increased only 27 per cent, as against the 50 per cent called for by the plan. The second plan for modernisation and re-equipment was

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 3, 1965, p. 89.

topped for a number of indicators as a result of livened-up economic activity. The fulfilment was very uneven by industries, namely: coal, 98 per cent; electric power, 82 per cent; oil refining, 104 per cent; steel, 101 per cent; automobiles, 169 per cent; housing construction, 114 per cent; cotton yarn, 130 per cent; woollen yarn, 128 per cent; chemical fibres, 93 per cent.

Under the third plan the general production index which was to be 127 in 1961 (1956 = 100) was actually 123; index of personal consumption—117.6 (124.0); import index—118.2 (110). The targets and fulfilments of the third plan for industrial and agricultural production were as follows (1956 = 100) ¹

| | 1961 | | | 1961 | |
|---------------------------------------|--------|------------|-------------------|--------|------------|
| | Target | Fulfilment | | Target | Fulfilment |
| Electric power | 144 | 150 | Grain | 104 | 88 |
| Tractors and farm machinery | 141 | 104 | Maize | 260 | 247 |
| Automobiles, motorcycles and bicycles | 146 | 140 | Oil-bearing crops | 250 | 160 |
| Textiles | 131 | 120 | Beaf | 130 | 128 |
| Plastics | 149 | 195 | Veal | 125 | 114 |
| | | | Pork | 133 | 122 |
| | | | Mutton | 136 | 118 |
| | | | Milk | 123 | 129 |
| | | | Sugar | 102 | 119 |

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 11, 1964, pp. 92-93.

The Fourth Plan (1962-65) called for an average annual growth of the social product of 5.5 per cent. Actually it was 6.3 per cent in 1962, 4.7 per cent in 1963 and approximately 4 per cent in 1964.

The figures for France show that a considerable discrepancy between actual results and the plan is the law, while approximation is the exception. And France is generally considered the country with the most developed capitalist programming.

The reason for the divergence between plans and actual results is the domination of the capitalist market and subordination of the economy to interests of private firms and monopolies. In these conditions even a thoroughly elaborated and detailed plan remains not so much a reality as a desirable aim. Moreover, the point is not that the plans are too optimistic while private capitalist interests lead to worse results. The actual results deviate from the plan in different directions, in most cases downward. The capitalist economy remains unregulated because of the continued domination of private property and the capitalist market.

In some cases the anarchy of capitalist economy and the illusory nature of plans is expressed in a frenzied, spasmodic expansion of production, which is not provided for by any plan and creates the danger of subsequent sharp recessions. In Holland, for example, according to the 20-year forecast for 1951-1970, industrial production had to rise by 33-35 per cent in the first ten years, while actually it increased 60

per cent.¹

A still more striking example of the discrepancy between the plan and its fulfilment is offered by Japan. The five-year plan for 1956-1960, compiled in 1956, differs from the actual rates by 50-100 per cent.²

| | Planned targets | Actual results |
|---|-----------------|----------------|
| Gross national product (1955=100) | 127.6 | 162.0 |
| Per capita consumption (1934-36=100) | 135.1 | 147.5 |
| Index of the extractive and processing industry (1955=100) | 167.0 | 227.3 |
| Exports (million dollars) | 2,720 | 4,117 |
| Imports (million dollars) | 2,970 | 4,661 |

The Ikeda Plan adopted in 1960, envisaged an 11.9 per cent average annual increase in industrial production (machine-building—14.6 per cent; chemistry, 11.9 per cent; oil and coal processing, 11.9 per cent; metallurgical industry, 10.4 per cent; extractive industry, 2.7 per cent), while the actual growth of industrial production was 24.8 per cent in 1960 and 19.4 per cent in 1961 (machine-building, 37.7 and 29 per cent respectively and metallurgical industry, 31 per cent and 26 per cent). The programme called for an annual growth in capital

¹ *Economic Bulletin for Europe*, U. IV, Geneva, 1962, Vol. 14, No. 2, p. 83.

² *Planning Economic Development*, Edited by G. Hagen, 1963, Illinois, p. 133.

investments of 8.2 per cent, while actually it was: 55.5 per cent in 1959-60, 27.3 per cent in 1960-61 and 34.5 per cent in 1961-62. That is why in 1961-62 special measures were taken to reduce the growth rate so that the uncontrolled advance should not turn into an uncontrolled recession. The issue of loans and capital investment were cut, and the discount rate was raised twice. As a result, industrial production in 1962 increased only 8.2 per cent, but the price paid for uncontrolled growth was very high—30 per cent of idle fixed assets in the processing industry in December, 1962.¹

A sharp discrepancy between the plans and actual development of the economy is thus a characteristic feature of capitalist programming which in most cases remains far from reality. A comparison of this sharp discrepancy of plans for the development of the capitalist economy with the high precision of the fulfilment of plans for the development of the Soviet economy raises a number of questions: what does the reality of plans depend on, what differences in the aims, content and methods of socialist planning and capitalist programming lead to such different results? The next chapters have to provide an answer to these questions.

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*. No. 6, 1964, pp. 54, 55, 56.

Aim and Essence of Planning

Socialist planning of the economy on a national scale as well as programming and forecasting of the capitalist economy take as their initial point the social character of the productive forces and the high concentration of production. But the common functions and essence of socialist planning and capitalist programming begin and end at this point. The differences between them start with their social functions and end with the methods of drawing up plan projections. What is important here is neither the new answers, nor the historical distinctions, nor the fact that "countries with a strong socialist influence are in favour of more planning and countries with a dominant capitalist or conservative influence are likely to favour less planning."¹

¹ J. Tinbergen. *Central Planning*, 1964, p. 73.

The point is that the difference in the type of social systems leads to radical differences between socialist planning and capitalist programming. At the same time it cannot be denied that there exist features common to both, especially as regards concrete methods of calculation, study of specific technical and economic problems, econometric methods of studying the laws governing the development of the productive forces.

Socialist planning is not a fixed schedule; it develops and changes in conformity with the development of society, of science and technology, including the science of planning. It does not isolate itself from world experience, but utilizes everything valuable in it.

SOCIALIST PLANNING IN THE INTERESTS OF ALL SOCIETY

Socialist planning reflects the main aims and tasks of a country's economic development in the given period. Under socialism, the main purpose of production is to satisfy the requirements of all of society. It is this purpose that is facilitated by planning, which makes it possible consciously to apply economic laws in the interest of the people through the all-round and efficient use of the natural resources and society's productive forces.

Planning in the USSR proceeds from the principle that economic laws are of an objective nature and compliance with their demands is obligatory. This means that the solution of eco-

conomic problems depends not only on the wishes of people but also on the material conditions of production.

For example, wages can be increased only to the extent of the real material wealth society can allot at the given moment. Moreover, the increase in the wages fund depends directly on the growth of the social labour productivity. Subjectivism in the economy, that is, the adoption of decisions at will, without consideration for the actual economic possibilities, can only harm a country's economy and retard its progress.

On the other hand, planning rejects blind observance of traditions in economic relations, proportions and production methods. It implies the ever increasing role of the state's economic policy. Active interference in economic life enables a socialist state to concentrate efforts on the accomplishment of principal economic goals.

Experience shows that success in national economic planning directly depends on the role and place of the state sector in a country's economy, and that as this sector extends the economic role and importance of state plans rise. In the Soviet Union all industrial enterprises, transport facilities, trade and finance belong to one owner, the people. This determines the community of the tasks set before economic management agencies.

Socialist property in the USSR has two forms—state property (property owned by the entire people) and cooperative and collective-farm property (property of groups of working

people united in producers cooperatives). Socialist property prevails in the USSR. But the law also allows the small-scale private economy of peasants and artisans, which is based on personal labour and precludes the exploitation of someone else's labour. There are also the personal auxiliary husbandries of factory and office workers and collective farmers.

Despite the specific features of planning in various socialist countries, connected with national, historical and economic conditions, there are common features of socialist planning of international character.

First, socialist planning is based on public ownership of the means of production and collective ownership in agriculture. Public ownership predetermines the planned balanced nature of the socialist economic development and it brings into being the plan as an instrument for regulating production.

Second, socialist planning is effected on a national scale by sectors, combined with the wide development of regional planning and planning in production associations and at individual enterprises.

Third, abolishing spontaneous market relations, socialist planning utilizes money, credit, prices and taxation as economic instruments; planning does not take the place of these instruments, but flexibly interacts with them.

Fourth, socialist planning, being centralised and having a directive character, rests on the wide participation of the workers, trade unions, mass organisations and all the people in the elaboration, discussion and fulfilment of state

plans. Planning arms people with a concrete programme of action, enables each one to find his place in the national effort and converts the workingman into the conscious architect of his life.

SCIENTIFIC NATURE OF PLANNING

Soviet economic development plans are scientific programmes based on the Marxist theory of extended reproduction, which contains such primary propositions as the division of the social product into means of production and consumer goods, the law of priority growth of the production of means of production, accumulation as the source of extended reproduction and also the premise of the principal economic proportions of social production. Proportionality of the economy implies the attainment of necessary balance between its different parts, for example, production of the means of production and consumer goods, development of industry and agriculture, consumption and accumulation.

The building of a new social system like communism presupposes the creation of an "exceedingly intricate and delicate system of new organisational relationships extending to the planned production and distribution of the goods required for the existence of tens of millions of people."¹ The immense tasks of social production planning can be accomplished only along

¹ Lenin. *Collected Works*, Vol. 27, p. 24.

scientific lines. This above all implies conscious use of economic laws in solving all problems of economic development.

The science of planning as a special branch of the social sciences is called upon to find ways of applying economic laws in directing social production. Marxist-Leninist political economy is the chief theoretical basis of scientific planning. At the same time the science of planning also rests on all the achievements of the natural and technical sciences.

Genuinely scientific methods of substantiating the ways for further economic progress are needed at the present stage in the development of Soviet society's productive forces. Long-range economic development plans are increasingly becoming plans of scientific forecasts. Their purpose is to achieve the highest living standard for the people. To accomplish this task in the best way, the formulation of plans must be preceded by profoundly scientific elaboration of many intricate economic and technical programmes. A. N. Kosygin, Chairman of the USSR Council of Ministers, addressing planning workers in March 1965, said: "Planning is a science which must assimilate all scientific and technical achievements and progressive ideas."¹ Explaining the general thesis, Kosygin stressed that the drawing up of plans is a great creative work, in the course of which the necessity and possibility of solving major economic and social problems must be scientifically proved. In this connection scientific forecasts, elaborated prior

¹ *Planovoye Khozyaistvo*, No. 4, 1965, p. 4.

to the compilation of plans, are of especial importance. Scientific forecasts must be prepared in each industry so as to pave the way in good time for everything progressive and to know the trend for drawing up the plan. Scientific forecasts or preliminary estimates for the development of an industry are usually made by research or designing institutes. They indicate the main trends of technological progress and contain all the basic technical and economic indicators for its development.

The most general feature and chief aim in planning is to bring out the scale and composition of social needs and to determine the material and labour resources necessary for their satisfaction and then coordinate them. The satisfaction of social requirements and the use of resources are subordinated to the indefeasible law of the socialist economy formulated in the Programme of the Communist Party of the Soviet Union. "Chief emphasis at all levels of planning and economic management must be laid on the most rational and efficient use of material, labour and financial resources and natural wealth, as well as on the elimination of excessive expenditure and of losses. The immutable law of economic development is to achieve in the interest of society the highest results at the lowest cost."

The principle of "highest results at the lowest cost" is not a special product of the socialist economy. This formula is used in solving production problems in all economic systems where the objective law of the economy of labour-time operates. The fundamentally new element in the

general formula of efficiency, which reflects the specific conditions of socialism, is the attainment of highest results in the interests of the whole society, and not in the interests of an individual or a group of individuals. That is why socialist planning has a special function: it brings out the requirements of society as a single integral organism. This function develops for the first time in history, together with the emergence of the new social system, socialism.

SOCIAL NEEDS IN THE FOCUS OF ATTENTION

Social requirements are the sum-total of the needs in goods of definite volume, assortment and quality for production and consumption by the people, for the country's defence and for education, health services, science and other spheres of non-productive activity. The social usefulness of the goods produced is the main demand made on all sectors.

Lenin wrote that the replacement of capitalist production by socialist is effected to "ensure the well-being and free all-round development of all its members." That is why a plan for the development of socialist economy is based on the need to satisfy the requirements of society in the best possible way.

Planning production in conformity with social requirements has nothing in common with a consumer approach to the plan, signifying disregard for accumulation, giving preference to

current requirements over accumulation and a desire to extend personal consumption today to the detriment of a stable growth of consumption in future.

To proceed in planning from social requirements means to take into account not only current consumption needs, but also the necessity to constantly improve the living standard, which is possible only through continuous and efficient development of production. That is why planning in conformity with social requirements means not to subordinate all national economy to present-day consumption, but optimally to combine production and consumption, current personal and long-range consumption, production and accumulation, so as to ensure maximum satisfaction of social requirements for the entire long-term period of economic development.

To proceed in planning from social requirements means that the drawing up of a plan should be preceded by comprehensive study of the needs of the socialist market—that is, the demand of the population and the needs of production.

To evaluate correctly the primary social requirements for a definite period is a major problem of socialist planning. Before drawing up a production plan, each enterprise or production association must study the demand of the consumer. Under socialism, there is no spontaneous market to which all the producers are subordinated on the pain of ruin. But this does not mean that the demands of the socialist market for means of production and consumer goods are ignored.

The final social product is determined by the

needs of society in consumer goods and in the expansion of production. The final product is the part of the gross social product which finally emerges beyond the bounds of current production and is used for consumption, accumulation and also for replacing the means of production which had been accumulated earlier and were expended in production. If the national income of society is equal to the gross social product minus all material outlays on its production, the final social product is obtained as a result of deducting from the value of the gross social product only current material outlays, those made for the output of the given year. In other words, the value of the final social product consists of the value newly created by living labour in the given year and the value transferred from means of production accumulated in previous years.

But the results of socialist production are characterised not only by the value of the produced commodities, the national income or gross product, but also by their physical composition. For the proportional and rapid development of the economy and the full satisfaction of the population's demands, not just any commodities are needed, but only those which to maximum degree correspond to social requirements.

EFFICIENCY AS THE CHIEF INDICATOR

Since the aim of production is known, the main thing in planning is to organise most efficiently social production and to ensure the accomplishment of the set aim in the shortest possible time

and with the lowest outlays of labour and material resources. Thus, speaking about the efficiency of production, we again have in mind the best satisfaction of society's requirements. The more rationally labour resources are utilised, the more economically raw materials, fuel and electric power are used, the lower the outlays per unit of output and the higher labour productivity, the more fully social requirements can be satisfied.

If accounting and planning of social requirements provide the answer to the question *what to produce*, planning of the utilization of resources indicates *how to produce*.

The process of socialist extended reproduction is effected with a definite volume of productive assets, labour resources and some or other degree of the workers' skill. The scale of production is also connected with the quantity and quality of natural resources. The available material, labour and natural resources are not boundless, especially within definite time limits (for example, a year). That is why the allocation of these resources between sectors of the economy and categories of production is subordinated under socialism to an objective requisite—at the given technical level to strive for the *smallest possible outlays of living and materialised labour per unit of output*.

The economic efficiency of social production is characterised by the outlays of the main types of resources per unit of the total social product, final product or national income. A number of economic efficiency indicators are utilized in planning. They reflect the outlays of various re-

sources from different angles and at the same time they are closely interconnected because ultimately every saving is a saving of socially necessary labour. We can single out three main indicators of economic efficiency: labour productivity (production of commodities per unit of time) or the reverse indicator, the labour/output ratio (labour outlays per unit of output); the output/assets ratio (quantity of commodities received per unit of fixed productive assets) or the reverse indicator, assets/output ratio (outlays of assets per unit of output); the materials/output ratio (current outlays of raw and other materials, fuel and electric power per unit of output).

Labour productivity is the main planning indicator of economic efficiency. Expansion of social production depends on changes in the volume of utilised living labour and on the dynamics of its expenditure per unit of output. The more efficiently the economy develops, the greater the extent to which the increase in production is effected by raising labour productivity, that is, by reducing the labour expenditure per unit of output.

Labour productivity accumulates the effect of all factors making for higher efficiency of social production and, therefore, is a general indicator. It depends above all on assets per worker. The bigger the assets per worker, the more productive labour is. It is important to ensure conditions in which labour productivity would rise faster than assets per worker, that is, the output/asset ratio should increase constantly.

The material/output ratio makes it possible

to characterise in a generalised way the efficiency of current production outlays. A reduction of material outlays per unit of output is one of the main sources for raising the efficiency of production. To produce more machinery with the same quantity of metal, more clothing and shoes with the same quantity of raw materials, and so on—this is a manifestation of the law of “highest results at the lowest cost.”

To characterise fully the efficient use of resources and plan it, labour productivity, output/assets and materials/output ratios must not be taken in isolation. It is possible to save raw materials by over-expending living labour or to raise labour productivity by making excessive capital investment. Socialist planning aims to achieve the highest output of goods with the lowest total outlays of labour and resources.

PROPORTIONALITY AS ESSENCE OF PLANNING

The idea of economic efficiency concerns all sides of social production. This idea is at the root of our economic policy and planning, whether it be the ratio of consumption and accumulation, which is a major economic question, or more technical problems such as the relationship between the output of converter and open-hearth steel.

Notwithstanding all the diversity of these problems, and different approaches to determin-

ing the efficiency of social production, there is one common approach which is the essence of socialist planning. It is to consider the efficiency of production from the standpoint of proportionality in the development of the economy as a whole, and proportions within each sector. In socialist society *consciously maintained proportionality of the economy ensures its planned balanced development*. Problems of proportionality in the development of the economy have acquired special importance at the present stage of communist construction, when fundamental changes in all sectors of material production are taking place under the impact of scientific and technological progress. Essential changes in national economic proportions are also connected with solving the great historic problem of creating abundance of material and spiritual wealth for all members of society.

National economic planning is called upon to ensure proportionality in the development of the economy, prevent the rise of disproportions, ensure adequate economic reserves as an indispensable condition for high growth rates, the uninterrupted operation of enterprises and the constant advance in the living standard. Accomplishment of these tasks is possible only by day-to-day analysis of economic development and profound study of the laws governing economic processes and knowledge of all national economic relations and proportions.

Social production is an intricate organisation of millions of producers and consumers of material and cultural wealth. The multi-facet nature of the reproduction process determines the

need for observing various proportions. Roughly, reproduction proportions can be divided into two large groups: general economic proportions and production proportions. The first express the structure of the social product and the national income.

These are proportions between the social product and the national income, the consumption fund and the accumulation fund, Department I (production of means of production) and Department II (production of consumer goods), industry and agriculture, money income and expenditure of the population. The second include proportions between individual sectors, within sectors and enterprises. Closely related to proportions of a productive character are also various technical and economic proportions, relationship between power and working machines, capacity for the extraction of raw materials and their processing, etc.

There is an unseverable connection between general economic proportions and production proportions. For example, the ratio between consumption and accumulation predetermines the sectorial structure of social production. A bigger share of accumulation in production assets, all other conditions being equal, accelerates development of industries, manufacturing means of production. On the contrary, an increase in the share of consumption in the national income involves greater development of consumer goods manufacture. At the same time shifts in sectorial proportions under impact of technological progress change the sectorial structure of consumption and accumulation funds, determine a rise in

efficiency of production accumulations and thereby make it possible to change the relationship between accumulation and consumption in favour of the latter.

Consistent application of the principle of faster development of economical industries and categories of production which speed up technological progress, improve quality and reduce production costs, is a major requisite for creating the economically most advantageous proportions. The question whether certain production is economical or not is decided by comparing its economic indicators with those of similar production. The aim is to achieve highest results at the lowest cost. For this purpose a number of production variants is compared. It is a fact that a definite social need can be satisfied in different ways.

For example, society's needs in fuel can be covered by coal, oil, gas and other combustible materials. There is a great diversity of interchangeable structural materials made of steel, non-ferrous metals and plastics. Categories of production which can give society more goods at lower outlay should be given priority.

It must be taken into account that although many economical sectors and categories of production account for an insignificant share of total industrial output, they play a tremendous part in accelerating technological progress in other sectors of the economy. Electronics, specifically transistors, lasers and similar new technologies, are a case in point.

Economically feasible limits of replacing some products by others are regulated

in the plan by stepping up the development of economical—that is, progressive—categories of production, and slowing down the development, curtailing or halting the output of less economical products. Differing growth rates in various sectors bring about changes in the sectorial structure of industry. Priority growth of progressive sectors results in a general rise of production efficiency, expressed in faster growth of the national income and ultimately bigger output of material wealth.

An analysis of structural shifts in material production reveals important laws characterising the principal changes in proportions between economic sectors, and above all in industry, which occur under the impact of technological progress. This is first of all the swifter growth of industry as compared with other sectors of material production and, specifically, as compared with agriculture; accelerated growth of industries which directly reflect technological progress (engineering, power, chemical); faster growth of the processing industry as compared with the raw-material sectors: ousting of less efficient kinds of fuel, power, raw and other materials by more efficient ones.

The development of a modern chemical industry is a major result of technological progress in the Soviet Union.

Economic science has also established more general laws governing changes in economic proportions and structural shifts in the economy.

Priority growth of the production of the means of production is a prime postulate of extended reproduction and technological progress.

But production of the means of production—machinery, equipment, raw and other materials and fuel—in socialist countries is not an aim in itself.

It ultimately is needed for satisfying the growing requirements of the people. That is why, if an economic prerequisite arises for bringing closer together the growth rates in the production of means of production and of consumer goods, it is utilized to the utmost, because the smaller this gap, while maintaining high growth rates and rising consumption, the greater the efficiency of national economic management.

Technological progress determines a definite tendency to increase the resources available for consumption with relatively smaller outlays to maintain high economic growth rates.

Proportional development of the economy by consciously regulating material production enables society to achieve more efficient and rational use of a country's material wealth and labour resources. What is meant is the harmonious development of all sectors of the economy, proper distribution of the productive forces, tapping of the newly-discovered raw material resources and maximum improvement of working conditions. Naturally, the interests of the world socialist system as a whole are taken into account.

CAPITALIST PROGRAMMING. CONTRADICTIONS BETWEEN AIMS AND POSSIBILITIES

Socialism combines the social character of production, social ownership and social regulation of production.

Socialist planning, having as its object the entire economy and all aspects of production, is based on adequate objective conditions. Capitalist programming does not control the spontaneous market; it does not abolish class privileges, and is effected in conditions of irreconcilable contradictions. Its slogan is: "The capitalist economy must survive." The market remains the regulator and driving force of production and distribution; but in the new conditions it no longer copes with all the problems of contemporary capitalism; it needs a stabiliser and shock absorber. Capitalist programming is designed to serve as such.

The aims and economic content of capitalist programming are determined by a combination of two different, contradictory factors: domination of private ownership, the monopolies and spontaneous market forces, on the one hand, and the desire to avoid cyclical fluctuations and unbalanced growth, on the other. Without changing anything in the essence of the capitalist system, programming seeks to eliminate all its obvious negative features—that is, to eliminate the consequences without affecting the cause.

Remaining on positions of private capitalist property, programming seeks to express the general interests of the nation by coordinating them with the interests of individual firms and mono-

polies. While leaving the market forces a decisive role in the development of economy, capitalist programming wants to be their catalyst or regulator. Leaving all the economic instruments in the hands of the ruling classes, capitalist programming assumes the impractical function of smoothing over social and property differences.

Most important features of capitalist programming are:

First, capitalist programming is based on private property, the domination of corporations and monopolies, while the nationalised sector is either absent or plays a secondary role with regard to the private sector. In these conditions the plan is merely a "concerting" of national interests with private capitalist interests in favour of the latter.

Second, acting as an aid to the market forces, capitalist programming assumes the functions which the present-day capitalist market cannot discharge (attainment of an equilibrium, full employment, stable growth). And it is not the market that is subordinated to the plan, but the plan to the market, as a result of which it can act only in the restricted role of stabiliser or catalyser of the market forces.

Third, capitalist programming is effected mainly on the scale of the national economy, covering in some cases individual sectors. The basic production units, enterprises and firms, are beyond the bounds of programming. As a result, plans are drawn up in a centralised way, while economic decisions are taken privately; the national plan does not have methods of fulfilment

adequate to its aims as soon as it goes beyond the bounds of the nationalised sector.

In addition to these general functions, capitalist programming is confronted with a number of specific economic problems in various capitalist countries, in conformity with the objective economic conditions and also the prevailing theoretical concepts and historical traditions, and this leads to definite distinctions in its content. In some countries programming is merely called upon to forecast possible economic growth tendencies; in others the task of achieving balanced growth is put to the fore; in countries with a considerable nationalised sector problems of changing the economic structure hold a significant place. The differences in aims and concrete tasks lead to dissimilarity of forms of capitalist programming, which we shall discuss in the next chapter.

However, the presence of these aims in itself does not yet create possibilities for their practical achievement. Capitalism, preserving private property, thereby enters into an irreconcilable contradiction with the social character of the productive forces. Partial nationalisation does not remove this contradiction and merely stresses the impossibility of ensuring a normal economic process under the domination of private capitalist property.

"CONCERTED" ECONOMY AND PRIVATE INTERESTS

Western literature on economy widely advocates the idea that capitalist programming is some-

thing in the nature of a "social contract" which leads to a "concerted"¹ economy, that it is capable of reconciling the social interests with the capitalist market and is something intermediary between socialist planning and the free operation of the market forces.

"The foundation of the French plan," Pierre Massé wrote in his preface to the book, *Economic Planning in France*, "is a collective reflection on the future. It leads to conclusions which are concerted between the representatives of various groups in society and correspond to a middle way between the traditional liberal market economy and the detailed, centralised and authoritarian type of planning which existed, and still exists, in Eastern European countries."² "The essence of the French system of planning in a 'regime where private initiative and public action exist together' (Fourth Plan, p. 4) has lain traditionally in the reconciliation by the plan of 'the imperative of development' and the 'cleaving to liberty'."³

Does this third way really exist? Can the plan reconcile the public and private interests if private property dominates? "One of the weak sides of neo-Marxism," F. Perroux asserts, "is repetition of the assertion that capitalism cannot obey a plan."⁴

¹ The term "concerted" economy is a translation from the French "économie concertée."

² I. Hackett, A. M. Hackett. *Economic Planning in France*, Preface by Pierre Massé, London, 1963, p. 7.

³ *Ibid*, p. 206

⁴ F. Perroux. *La coexistence pacifique*. Cahiers de l'institut de science économique appliqué, Paris, 1959, p. 113.

Indeed, Marxists, and not only they, assert that capitalism and a national plan are incompatible in principle if the plan tries to achieve that which does not correspond to the private interests. That is why many Western economists do not in the least conceal the fact that their plans are real only inasmuch as they promote private enterprise. The main functions of the plan, asserts E. Hamel, one of the leading figures in French planning, is "to favour free enterprise and to throw light on the environment in which free enterprise will function in each sector of the economy."¹ Similar conclusions are contained in materials of the United Nations. "...Developed countries thus look upon private enterprise as the main source of economic growth and many of them regard the principal tasks of the governments as ensuring economic stability and providing a favourable economic climate for the private sector."² "The aspirations of the entrepreneurs are concealed behind the motives of national interest."³

In these conditions partial nationalisation and a national plan can be only a catalyser with regard to the private sector and, as pointed out by G. Monnet, the first Commissioner General of the Plan in France, "the sums placed at the disposal of nationalised enterprises pass through them merely in transit and are redistributed

¹ *Functions du troisième plan de modernisation et d'équipement*, Paris, 1957, p. 12.

² *Planning for Economic Development*, United Nations, New York, 1963, p. 54.

³ P. Bouchet. *La planification française*, Paris, 1962, p. 275.

among private enterprises in the form of orders for equipment and for the performance of jobs.”¹ What this “transit” means economically is seen from the following calculation of the General Confederation of Labour.² Owing to the relatively low rates for gas and electricity the state railways and the Electricité de France made the monopolies a gift of about 3,000,000 million old francs between 1948 and 1960 because rates increased 16.4 per cent during this period, while wholesale prices rose 37.8 times. In these conditions even the existence of a nationalised sector does not alter the essence of the plan. Both the state sector and the national plan act as stimuli and conditions for the better development of private enterprise, because the latter by itself can no longer normally function. It is no accident, for example, that the state increasingly assumes the development of the infrastructure and research work in order to stimulate private investment in sectors where efficiency of investment is higher.

The desire to picture capitalist programming as a means of achieving national “concert,” as the “third” way, is especially untenable in income distribution. The problem of social inequality, especially inequality in income distribution, is insoluble under imperialism. Walt Rostow, an American sociologist, said that the United States should fear not the Soviet growth rates,

¹ Quoted after *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 11, 1962, p. 45.

² Quoted after *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 11, 1962, p. 42.

but the American forms of distribution which fetter the country. The concentration of the national income in the hands of the privileged class is not only social injustice; it also hampers an expansion of consumer demand and retards economic growth. Capitalist programming, called upon to "concert" the interests of the "first" hundreds of families located on top of the social pyramid and of millions of families at the foundation, presents an odd sight, to say the least!

Despite the numerous declarations, no special illusions exist on this point. "Class, and group, antagonisms exist in France as elsewhere, and the plan does not exorcise them by a magic wave of the wand."¹ "The role planning should play is not to abolish the struggle of groups, but direct it towards general progress."² But of what can general progress of antagonistic classes and groups consist? Let a bourgeois author himself reply to this question. "The entrepreneurs," P. Bouchet writes, "hold a privileged position. They are the owners of the incomes and no one can restrict their consumption. Since they are the owners, an increase of property as a result of capital investments leads to an increase in their consumption." "The claims of the workers are more direct and the increase in their consumption expenditure is insignificant. The increase in income from wages can be achieved only in open struggle." "Inequality, privileges of separate social groups and the annual incomes from the best lands grow ever faster with the

¹ I. Hacket. A. M. Hacket. *Op. Cit.*, p. 317.

² P. Bouchet. *La planification française*, Paris, 1962, p. 275.

general rise in incomes and production, and they are intensified with the acceleration of growth rates." "We must bear in mind that in our system the government cannot control legislatively the incomes of the profit owners. Wages are the sole effectively controlled income, the most convenient for observation."¹ Rigid control over the incomes of factory and office workers and the absence of effective means of control over profits—such in reality is the middle way.

CAPITALIST PROGRAMMING AS AN AID TO THE MARKET

Capitalist programming is called upon to regulate the free market; it is put forward as an alternative to the market forces no longer capable of ensuring stable economic growth. To what extent is programming designed to replace the capitalist market? What is their interconnection? Western economists do not provide uniform answers to these questions.

Let us begin by noting that some economists continue to deny the advantages of the plan over the free market. John Jewkes,² for example, holds that free enterprise can be more flexible than national planning: first, says Jewkes, planning, which is a coordination of action, requires much time for this coordination, while entrepre-

¹ P. Bouchet. *La planification française*, Paris, 1962, pp. 275, 276, 278.

² John Jewkes. *Planning by Ordeal*, London, 1948.

neurs independent of each other can act more swiftly: second, technical and commercial details are better known to the individual producer than to central agencies; third, mistakes of independent producers can partly neutralise each other, while erroneous decisions taken centrally cannot be balanced.

Such an apology for the free unrestricted market is not so rare among economists of the United States, Britain, West Germany and other countries. The theory and practices of "neo-liberalism" prevail in West Germany, where rapid postwar economic growth on the basis of absolutely unrestricted private enterprise helped to preserve faith in the market forces, in *laissez-faire*. At the same time this has brought forth criticism against countries which widely utilize methods of state interference. *Frankfurter Allgemeine*, for example, asserted on May 17, 1958, that "*étatisme* is the root of France's economic weakness."

Faith in the free market has largely been preserved in the United States, inasmuch as traditions of free enterprise are very strongly rooted there.

The logical consequence of such an outlook is a negative or sceptical attitude towards capitalist programming and the elaboration of national plans. There is reason why some neo-liberals think that planning under capitalism is a typically French phenomenon, because protectionism has always been characteristic of France.

Thus, far from all theoreticians and practical leaders of capitalism are in favour of economic programming and wide state interference. We do

not intend to act as critics and prove that state interference and capitalist programming are needed. Everything that could have been said about it from positions of capitalism has been said by Keynes and the Keynesians. We shall merely draw attention to a principal aspect. As long as free enterprise ensured definite economic growth and a certain equilibrium which was upset by "not too destructive" crises, the theory and practice of state interference and capitalist programming were in an embryonic state. But the deeper the crises and the longer the depression, the faster they began to develop. In the new conditions the precept "Drowning man, save himself," typical of capitalism, no longer holds good, and the state makes it its business to save "the drowning" Even in the United States and the Federal Republic of Germany, the countries where the principle of free enterprise has been preserved to the greatest extent, the role of the state is exceedingly high. In the FRG state accounts for one-third of all the capital investments and in the USA the share of assets owned by the state in total national assets rose from 6.6 per cent in 1902 to 20.6 per cent in 1946, while the share of the national income received by the state through taxation rose from 1.8 per cent in 1900 to 22.4 per cent in 1957.¹ West German ruling circles adhere to the positions of neo-liberalism, but their views have evolved towards admission that state interference and the role of programming should increase.

¹ R. Kh. Khafizov. *Critique of State Regulation of the Capitalist Economy* (in Russian), Moscow, 1961, p. 21.

This evolution was expressed in establishing in 1963 a group of advisers to the Federal Chancellor on problems of forecasts and programming. The limited nature of this step is not so important as the tendency itself, which is being intensified by the process of integration in the Common Market.

And yet a considerable part, if not the majority of bourgeois economists (theoreticians and practical workers) hold that one of the chief functions of capitalist programming is to restrict the market forces in the general national interest, and that this function is fully feasible. The spontaneous action of the capitalist market has led, and is leading, to unemployment, overproduction, slow growth of the effective demand, balance-of-payments deficit, epidemic of failures, that is, to everything Marxists call capitalist crises. All these phenomena hit a record high in 1929-1930. Since then capitalism has given history a risky promissory note, an obligation to prevent a crisis similar to the Great Depression. Capitalist programming is designed to fulfil this obligation, to maintain the economy in a state of equilibrium. "The plan," F. Perroux points out, "is the assistant of the market when the latter does not discharge its functions..."¹ Thus, the plan is called upon to do everything the market is unable to do. Here is a very important idea which expresses the quintessence of capitalist programming.

At the same time the plan remains only the market's aid, that is, plays a subordinate role

¹ F. Perroux. *Le V plan française*, 1963, Paris, p. 24.

and is called upon to mitigate the excesses of the market and, moreover, to stimulate the market. "Plans do not stand in contrast to the market; they are an integral part of the market economy, which is subjected, if not to cyclical fluctuations, at least to an alternation of 'high and low tides.'" ¹ With such a relation between the plan and the market, only a plan which conforms to the tendencies of the market and merely facilitates its equilibrium is feasible. "... Planning has been most successful only when it stimulated the market economy and facilitated profitability, instead of setting itself up against it." ²

Three problems are put to the fore as concrete tasks of capitalist programming at the present stage in various combinations: first, achievement of an internally and externally balanced economy (supply and demand on the home market, equilibrium of the foreign trade and payments balance); second, higher and stable economic growth rates; third, structural changes in production.

The anti-cyclical trend of capitalist programming is its most fixed feature. Unemployment, rising prices, balance-of-payments deficits—these are insoluble problems of capitalism and they fully preserve their "urgency" today. Capitalist programming is not counterposed to market tendencies; it merely tries to even them out, to

¹ M. van Meerhaeghe. "La planification indicative," "Les Problèmes de la planification," *Colloque de l'institut de sociologie de Solway*, Bruxelles, 1962, p. 55.

² I. Bénard. "La marche commun européenne et l'avenir de la planification française," *Problèmes économiques*, 8 December, 1964.

soften by state measures the sharp fluctuations of the economic cycle.

The capitalist market has also demonstrated its inability to ensure high, and, what is most important, stable growth rates. That is why capitalist programming is expected to accomplish what the market failed to do. "There is no reason to believe that the high rate of growth would result from spontaneous efforts of economic forces; it will require specific policy measures to achieve it."¹ That is why "the fast rate of economic growth is still the dominant preoccupation of the French Plan."²

Economic growth rates are the preoccupation not only of French planning, but also of all the other developed capitalist countries which utilise or do not utilise the methods of economic programming. But in France, as in other countries which go beyond conjunctural planning,³ growth rates are put to the foreground as a national goal. That is why, if we are to speak of the main aim of the Fourth Plan in France, it is to attain a 5.5-per cent annual growth rates in the national income.

The presence of a nationalised sector confronts capitalist programming with the problem of influencing not only the economy as a whole, but also its separate branches, to change the relationship between them in favour of some of them. It is characteristic that first choice is given

¹ I. Hacket. A. M. Hacket. *Op. Cit.*, p. 118.

² *Ibid.*, p. 357.

³ This term is a translation from the French "la planification conjoncturelle," its meaning is explained in the section dealing with this type of planning. See pp. 138-140.

to branches connected with war production and technological progress and which have a low rate of profit (above all the infrastructure and the extractive industry).

And so, capitalist programming, advanced as a means of providing a "concerted" economy, is called upon, in the opinion of its ideologists and devisers, to play a triple role: first, to ensure conformity between the private and national interests; second, to promote a more even distribution of incomes, and, third, to restrict the operation of the market when it leads to adverse changes in the economy and also to help accomplish concrete economic tasks, inasmuch as the market forces are unable to do so. These functions have a fully objective and material origin; they reflect the actual contradictions of capitalism: the contradiction between the social nature of production and private ownership of the means of production, the socially unjust and economically fallacious distribution of incomes in favour of the privileged minority, the inability of the market and free competition to ensure normal economic development. But attempts to resolve these contradictions, as pointed out earlier, are rather one-sided.

Capitalist programming favours the maximum private enterprise and the monopolies and subordinates the social interests to them; rigidly regulating wages it is little effective as regards profits; while seeking to restrict market tendencies, programming is wholly subordinated to the market, stimulates the market economy and assumes only the functions which the capitalist market today is unable to discharge. Such in

reality is the middle way, the way of a “concerted” economy. Under capitalism this way cannot be any different. In the long run, everything is subordinated to the objective logic of history, and capitalist programming cannot be the exception.

CHAPTER IV

Forms and Organisation of Planning

The forms and organisation of planning depend upon its aims and economic essence. In the socialist economy planning embraces all sides of the economy—production, capital investments, living standard, finances, prices, and so on. Plans are drawn up for the entire national economy and also for sectors, areas and enterprises. Planning of social production includes the conscious use of the laws governing the socialist market relations and commodity-money relations. Profitability does not run counter to the plan, but is its indispensable requisite. The plan is achieved not by ignoring the demand of the population, but by guiding itself by this demand.

Socialist planning is based not on projects of administrators, but on ideas, criticism and suggestions of tens of millions of people taking a direct part in drawing up plans at all levels.

Capitalist programming utilizes quite different forms and methods of regulating the economy. Being subordinated to private capitalist interests and fulfilling an auxiliary role with regard to the spontaneous market, it cannot be all inclusive and largely remains speculative and passive.

Capitalist programming, not based on public ownership, is forced to deal only with separate sides of the economy that come within its scope. In the capitalist economy, even if there are all kinds of plans and programmes, economic activity in the main is regulated by the market. This determines the non-obligatory nature of planning and its narrow sphere of action. Leaving economic decisions fully in the hands of private firms and monopolies, capitalist programming cannot go beyond the bounds of recommendations; from being decisive, is merely consultative. Capitalist programming is completely isolated by private property from the interests and participation of the direct producers, and, therefore, often remains merely the product of arm-chair effort of management and specialists.

Capitalist programming is not an integrated whole. It exists in different forms and pursues narrower or wider objectives. Its activity rises with the increase in the role of the nationalised sector.

From forecasts to imperative planning in a number of sectors—such is the diversity of

forms of capitalist programming. Moreover, its feasibility does not depend on whether the plans are ambitious and detailed or not. The claims do not always correspond to the possibilities.

SYSTEM OF PLANS AND THEIR INTERCONNECTION

The system of national economic planning in the Soviet Union can be pictured as a pyramid in which the plans of enterprises and also the territorial management agencies form the foundation. Next come the plans of the Union Republics and, lastly, the summit of the pyramid is crowned by the national economic development plan.

Planning of production encompasses all establishments: factories, mines, collective farms, and state farms, construction sites, etc. The entire personnel of an enterprise takes part in drawing up the plan. It discusses the draft and submits corrections and amendments. In the long run, all proposals are concentrated in the planning department of the enterprise, which draws up the final variant of the plan. This is the first link in the general system of planning agencies.

Plans of economic associations and Planning Committees of the Union Republics rest on the plans of enterprises. But each enterprise naturally cannot fully know the country's needs in the goods it produces. To orient enterprises in working out plans for the goods they produce in the required quantities, and in organising the manufacture of new goods and developing the most progressive spheres of production, leading bodies

draw up directives on the tasks and trends of the plan and then inform the enterprises about their control figures and plan assignments. On the basis of the control figures and existing relations with its consumers an enterprise draws up long-term and annual plans for all its activities.

The plan drawing at an enterprise begins with an analysis of the attained level of production and the disclosure of internal reserves for further growth. Rates are used as the basis for all calculations: rates of equipment productivity, rates of consumption of electric power, fuel, raw materials, semi-finished products and other material resources, and also rates of labour expenditure per unit of output. The elaboration of progressive rates which take into account the possibility of introducing technical innovations and the mass application of the best experience—this is the keystone of planning work, on which the entire edifice of subsequent calculations rests.

The plan of an enterprise reflects the interdependence of shops and sections in the manufacturing process. The production plan of an enterprise—for example, a medium-sized engineering plant—embraces the process of manufacturing thousands of different parts, which pass many thousand operations. Naturally the elaboration of a production plan of such an enterprise presupposes an improved method of calculations which at present increasingly rests on high-speed electronic computers.

In other sectors of the economy—agriculture, for example—planning has other forms. But

there, too, it covers in detail all elements of the production process. Thus, the plan organises the production process and determines the tasks of each worker.

The content and forms of the interconnection between plans in separate links of the economy are determined by real conditions of the process of production, distribution and consumption of material wealth. The organising role of the plan is manifested along two lines. First of all, the production process within an enterprise is founded on its basis. On the other hand, in conditions of a highly developed social division of labour, characteristic of socialist society, each enterprise can function only if it exchanges the results of its activity with other sectors of the national economy. These "external" economic ties are also reflected in the plan of an enterprise.

The relationship of internal and external functions of an enterprise's plan determines the system of necessary indicators. The internal indicators, that is, those which set assignments for separate sections of production, must be concrete to the utmost and fix the production ties of the sections and the economic side of the production process. As for indicators which characterise the "external" economic ties, they must contain only such data as are necessary for shaping national economic proportions, and for organising production ties of enterprises and determining the economic relations of the given enterprise with society, as a whole, with the state.

Speaking about the interconnection of production plans, it should be stressed that their indicators are based on the principle of aggrega-

tion from the lower links to the higher.

The reorganisation of management and improvement of planning carried out in the Soviet Union on the basis of the decisions of the CPSU Central Committee approved at its Plenary Meeting in September 1965, drastically reduced the number of plan indicators of enterprises which are approved by the higher bodies.

As a rule, the following indicators are approved:

Production

Total volume of goods to be sold, in operating wholesale prices. In some industries, in case of necessity, the indicator of goods shipped may be used. Indicators in physical terms are used for major kinds of goods (giving separately output for export), including indicators of the quality of goods.

Labour

The wage fund.

Finances

The amount of profits and level of profitability (rate of profit to the sum of fixed assets and working funds);

Payments into the state budget and allocations from the budget.

Capital construction

Volume of centralised capital investments, including the volume of building and assembly work;

Commissioning of fixed assets and productive capacity on account of centralised capital investments.

Introduction of new technology

Assignments for organising the production of

new kinds of goods and the introduction of new manufacturing processes, comprehensive mechanisation and automation of production particularly important for the development of the given industry.

Supply

Volume of deliveries of raw and other materials and equipment allocated by a higher body to the enterprise.

The approved indicators are given in the annual plan as a rule with a breakdown by quarters, while the production indicators in physical terms in exceptional cases are also broken down by months, taking into account the contracts for the delivery of goods concluded by the enterprise.

All other indicators in the plans of enterprises are not approved by the higher bodies. They are elaborated by the enterprises and used by planning agencies both for calculating the required materials and formulating plans.

In conformity with the established plan indicators and the concluded contracts, an enterprise draws up a detailed annual combined technical, production and financial plan, quarterly and monthly plans of production and economic activity, which are approved by the director of the enterprise.

The plan of an enterprise enumerates all the main items to be produced; the plans of ministries and departments and also the plans of Union Republics list only the major kinds of goods, and in the state plan the list of goods is further aggregated.

The national economic plan as a state do-

cument, is a compendium of targets set for individual sectors in conformity with the general aim set before the economy for the given planned period. For the sake of convenience these targets, also called plan indicators, are grouped. The structure of the state plan naturally depends on how developed the economy is, on the social and sectoral structure of the material production, and also on the aims and tasks of the plan.

Sections dealing with social problems hold an important place in the state plan. The plan outlines the prospects for the further rise in the incomes of the working people, development of science, culture, health services and other spheres serving the material and cultural needs of the people. Special attention in social development plans is paid to such questions as extension of the network of schools and other educational establishments, housing construction and maintenance of the disabled at the expense of society. The elaboration of the economic development programme of the Soviet Union proceeds under the slogan "Everything in the name of man, for the benefit of man."

In socialist society the people's living standard advances on the basis of technological progress and improvement of manufacturing processes, chiefly through the rise in labour productivity. That is why questions of labour productivity command much attention in all sections of the plan. The national plan for economic development includes sections which determine the development of industry, agriculture, transport and communications, foreign trade,

material supply, retail trade and the rise in the living standard, as well as the development of individual economic areas. The generalised section of the plan is the summary including the main indicators for material production, labour and wages, finance, cost of production and accumulation.

The state plan is approved by the Supreme Soviet of the USSR and the plans of the Union Republics, by the Republican Supreme Soviets (parliaments). The approved national economic plan has the force of law and is binding on all organisations of the Soviet Union.

CURRENT AND LONG-TERM PLANS

The combination of current (annual) planning with long-term plans is an important principle underlying the organisation of socialist planning. In the first chapter we noted that current plans originated first. Those were plans for the production and distribution of major goods. Such a form of planning was in line with the economic situation which demanded the urgent solution of problems of supplying the population, developing industry and strengthening the country's defences. This could be done only on the basis of current plans. Annual plans have preserved their significance to this day, but they are now an integral part of the long-term plans. The annual plans specify the assignments of the long-term plans; the annual plans take into account the fulfilment of the long-term plan, the new requirements of society and the achievements of science and technology.

The main purpose of annual plans is to ensure the coordination of social production in conformity with the available resources. The supply plan is a major element of annual planning. Naturally, all the main indicators of the annual plan are largely determined by the long-term plan, which expresses the economic programme of the Communist Party and the Soviet Government for a definite period, usually of five years. Each new long-term plan is connected with the solution of major economic and political problems.

The framing of a long-term plan passes through two stages. At the first stage the central planning agencies prepare an aggregated model of the plan, which gives general guide-lines of the trends and growth rates of the economy during the period covered by the plan.

But even at the first stage the nature and methods of calculations change as planning work deepens. At the initial stage the calculations are more of an aggregated nature and deal chiefly with synthetic indicators of economic development, such as the volume and growth rates of the national income, structure of the social product, main parameters of capital investment, and so on. Aggregated sectoral projections and the calculation of some preliminary indicators of labour and the living standard emerge at the end of the first stage.

The concrete indicators calculated at the first stage are:

allocation of the labour resources and labour-time by sectors and assessment of the possible growth in annual labour productivity;

volume of fixed assets and capital investment, and their main structural elements;

forecasts of changes in the indicators of efficiency of the use of fixed productive assets and capital investment in the productive sphere;

volume and structure of the consumption fund;

preliminary estimates of the growth rates of gross output in the main sectors of material production and also production of some of the main kinds of goods in physical terms.

The sum-total of these indicators reflects the real possibilities of economic growth, on the one hand, and the main tasks, on the other.

The aggregated estimates are known as target figures or main trends of national economic development. After their examination and approval by the leading bodies, they are communicated to economic agencies and enterprises.

On the basis of the target figures, a more detailed plan is elaborated at all links of planning and in economic agencies.

The elaboration of the long-term plan in two stages is an important organisational principle which makes possible the fullest account of production potentialities. The efficiency of the national economic plan largely depends on the plans drawn up at enterprises and construction sites with active participation of their personnel. In the past enterprises were enlisted in compiling long-term national economic development plans too, but this work was insufficiently organised and its results were inadequately utilized. Now the role of long-term planning has been considerably enhanced. A five-year

plan (with the allocation of major targets by years) is the main form of state national economic development planning in the USSR. The targets of the five-year plans are concretised in the annual plans.

Producer enterprises, proceeding from the control figures, coordinate in advance with the consumer enterprises or sales and trading organisations the volume, assortment and quality of the goods and delivery dates and form a backlog of orders. Higher agencies examine plans of enterprises with the participation of the latter and draw up sectorial plans.

A primary rule in distributing the targets of long-term plans by years is to ensure the rhythmic and proportional development of the economy, which presupposes a balanced plan each year.

But even with exceedingly high precision in working out a long-term plan, all the possible events in economic life cannot be foreseen and accurate fulfilment ensured. That is why adjustment of annual plans is inevitable. The annual assignments of a long-term plan are specified in a comprehensive way for all interconnected plan indicators. Changes of annual plans by higher bodies are allowed in exceptional cases, only after a preliminary discussion of these changes with the management of enterprises. Simultaneously the necessary adjustments in the interconnected plan indicators are made.

Adjustments in plans for the output of consumer goods caused by justified changes of orders of trading or sales organisations are introduced by enterprises themselves within the limits

of the plan of their profit targets; if this involves a reduction of payments into the budget, the adjustments are made upon coordination with the higher organisation at the expense of its reserves.

A special place is held by long-range plans for a period of from 10 to 20 years. The first long-range plan was that for the electrification of Russia drawn up on the initiative of Lenin in the first Soviet years. At present development of the Soviet Union is proceeding on the basis of the long-range 20-year plan (1961-1980), which provides for manyfold expansion of production on a new engineering basis. This will make it possible steeply to advance the living standard of the Soviet people.

PLANNING BY SECTORS AND AREAS

In socialist society planning embraces the entire range of economic and cultural development, all sides of the economy. Planning agencies are accomplishing the intricate task of coordinating the activities of hundreds of thousands of industrial, agricultural, transport and other production enterprises and the huge network of trading, cultural and service establishments. The state plan is drawn up along two main lines: by sectors and areas.

General guidance in compiling the sectoral plans is carried out by the respective ministries and other sectoral departments.

The main tasks of the Union-Republican and All-Union Ministries are:

to ensure, with smallest expenditure of social

labour, the production of high quality goods for satisfying the needs of the economy and the population;

to fulfil the state plan;

to utilize rationally capital investments, raise their effectiveness and also see to the timely commissioning of industrial enterprises and bringing production to full capacity in brief periods;

to apply a single technological policy and achieve a high technico-economic level of production;

to provide enterprises and organisations with qualified personnel, to ensure their proper employment and to take measures for improving labour organisation.

To cope successfully with these tasks USSR ministries concentrate in their hands the guidance of production as well as the activity of research and designing organisations in their respective sectors.

Union-Republican and All-Union Ministries allocate the material and technical resources for the development of industries, while supply plans are carried out through a system of central distributive and territorial supply agencies. Prior to the formation of ministries, sectorial plans chiefly covered the production programme in capital construction.

Now the sectorial plan includes all economic indicators (labour, production outlays, profitability, etc.). Sectoral plans envisage the priority development of the most efficient categories of production and manufacturing processes, the wide development of specialisation and coopera-

tion, mechanisation and automation of production processes, manufacture of the machinery, equipment, materials and consumer goods of new models. Much attention is given to the introduction of progressive rates for the consumption of materials and fuel, the expenditure of labour, the most rational use of productive capacity, rise in labour productivity and reduction of costs.

There is no need to describe planning in every sector of the economy. Let us merely dwell upon the distinctions of planning in major spheres of production such as industry and agriculture.

The industrial production plan calls for the output of main kinds of goods in physical terms and the production of goods by branches in value terms, with a breakdown of the total into means of production and consumer goods. The planned scale of industrial production is based, first, on material balances of the main kinds of raw and other materials and fuel; second, on the balances of productive capacity and fixed assets. Every increase in industrial output presupposes the fuller use of existing capacity or the commissioning of new capacity. A balance of productive capacity and a balance of fixed assets make it possible to determine the necessary capital investment by sectors and categories of industrial production.

The plan for industry determines the need in new workers of certain trades and skills and ensures the full employment of the able-bodied population. The drawing up of an industrial production plan also presupposes corresponding calculation of the wage fund.

The plan for development of agriculture provides for volume of output in value terms. At present, the state plan indicates only the volume of agricultural produce purchased by the state. The assignments for state purchases of farm produce are communicated to the regions and local agricultural boards, and to the collective farms and state farms. Central planning agencies calculate the probable sown area, yields, head of livestock, etc. But detailed production plans are drawn up directly in the collective farms and state farms, and in the agricultural boards.

Estimation of the main crop yields is a major element of the plan for crop growing, in addition to the balance of sown areas. The yield depends on the degree of mechanisation of agricultural production, the use of mineral fertilisers, improvement in the quality of seeds, irrigation and land reclamation. The possibility of carrying out these technical and economic measures is connected with the industrial production plans and also the foreign trade plan. The reproduction of perennial plants holds an important place in the agricultural development plan. Timely renewal and expansion of orchards and vineyards is a prime requisite for the normal advance of agriculture.

Plans for the development of animal husbandry rest on systematic reproduction of herds and also on indicators of livestock productivity. The fodder balance is a main condition for a regular rise in livestock productivity.

Sectoral projections are drawn up for highly differentiated sectors and categories of produc-

tion. There are more than 200 sectors in the state plan, with industry alone being differentiated into nearly 150 sectors.

All sectoral plans are strictly coordinated and dovetailed into a single economic plan. Only strict coordination of sectoral plans makes for that consciously maintained proportionality in the national economy which is a major element of planning.

Sectoral draft plans are coordinated in the territorial aspect to ensure the comprehensive development of individual areas and Union Republics. The need for planning by areas became obvious as early as the first years of the USSR's industrialisation. V. Kuibyshev, who was chairman of the Gosplan at that time, speaking on May 11, 1931, at a plenary meeting of the Gosplan, said: "The territorial aspect, the area aspect, must be applied as a principle from the very outset: beginning with the directives we must have an idea about the area aspect of the plan so that in the localities problems should be studied not only by sectors, not only at individual factories, trusts and associations, but that this plan could be studied in an area aspect, and on an area scale. Only then, correcting each other, making corresponding changes will we have a plan coordinated in all respects and filled with material content filled with technology." ¹

Economic agencies draw up territorial plans by sectors, while local planning commissions compile plans for an area as a whole.

¹ V. V. Kuibyshev. *Selected Works* (in Russian), Moscow, 1958, p. 277.

Regional (territorial), city and district planning commissions draw up and submit for approval drafts of comprehensive plans for economic and cultural development in their respective areas and submit them for approval to the executive committees of local Soviets. After approval these plans are sent to the higher planning agencies.

Economic development plans for Union Republics present now comprehensive programmes which encompass both the productive and the non-productive sphere.

The Union Republics have broad rights which were further extended at the end of 1965. For example, Councils of Ministers of Union Republics now examine draft plans of enterprises located in the territory of the republics, which are drawn up by the All-Union or Union-Republican Ministries, and submit their suggestions to the Council of Ministers of the USSR and the Gosplan of the USSR; they examine the plans for the development of operating enterprises and the location of new ones; approve plans of republican enterprises for the output of goods which are produced and fully consumed in the republic and plans for the allocation of these goods which are coordinated with the Gosplan of the USSR. Republican agencies also have broad rights with regard to finances, labour and wages.

DEMOCRATIC CENTRALISM IN PLANNING

Sectoral and territorial plans make up the foundation of the national economic plan. But it

would be the greatest delusion to imagine the country's state plan to be a mere sum-total of sectoral or territorial plans, although such far-fetched ideas of "linking together" in the Gosplan of the USSR the plans received from the Union Republics were expressed at one time.

The national economic development plan must first of all reflect the general interests of the state. There are many important economic problems which cannot be solved in the localities. The plan must combine the creative initiative and proposals of local bodies with the economically substantiated projections of central planning agencies.

This is an expression of the principle of democratic centralism formulated by Lenin in the first period of the Revolution of 1917.

"Centralism, understood in a democratic sense," Lenin wrote, "presupposes the possibility of a full and unhampered development not only of specific local features, but also of local inventiveness, local initiative, diverse ways, methods and means of progress to the common goal."¹

Socialist management and planning are based on the Lenin's formula of democratic centralism. Many bourgeois economists and political leaders, even progressive-minded, have difficulty in understanding the dialectical nature of this formula. The foreign press permanently reports either about an increasing centralisation of management in the Soviet Union or about its decentralisation. Need it be said that in both cases the interpretation is one-sided and wrong. The sour-

¹ Lenin. *Collected Works*, Russ. Ed., Vol. 27, p. 208.

ces of this mistake are clear, for the principle of democratic centralism, born of the distinctions of the socialist system, is inapplicable in the capitalist economy. Only under socialism is it possible best to combine centralised management of the country's economy, indispensable when the means of production are socially owned, with the maximum stimulation of the creative activity of the people, to whom the socialist system has opened up wide opportunity to participate in managing the country's economy and administering the state. "Communist construction," it is pointed out in the Programme of the CPSU, "presupposes the maximum development of *democratic principles of management* coupled with a strengthening and improvement of *centralised economic management by the state.*"

The success of planning largely depends on the extent to which the people understand the aims and tasks of economic construction. That is why systematic explanation to the people of the essence of planning, of the concrete economic-political tasks which the state sets before them, is a mighty means for advancing the country's economy and culture.

Soviet factory and office workers participate in planning in different ways. Draft plans of enterprises are discussed at meetings and production conferences. Front-ranking workers and engineers take part in commissions on specific technical and economic problems. Special attention is devoted to introducing new technology and improving the quality of goods. As for the collective farms, all planning problems there are

also solved on a broad democratic basis and annual plans are approved at general membership meetings.

The principle of democratic centralism in managing and planning economy develops together with all socialist relations. Attempts of bourgeois economists to depict each step in this process as a revision of the basic principles of socialism proceed from the premise that socialism is an ossified system, a set of dogmas and administrative instructions. That is why the tendency to make wider use of economic instruments, manifested lately in the socialist countries, is regarded by some Western economists as all but the restoration of capitalism. What is actually happening?

Let us recall first of all that the New Economic Policy, proposed by Lenin in 1921, was pictured by the enemies of the Soviet system as capitulation by the Bolsheviks, as the restoration of capitalism. Experience has shown that the use of market relations when public ownership of the means of production prevails, far from undermining socialism, strengthens it. The introduction and development of cost accounting, the principle of the material incentive made it possible to place all resources, to utilise all kinds of incentives in building socialism. Lenin said that socialism and communism must be built "not directly relying on enthusiasm, but aided by enthusiasm engendered by the great revolution, and on the basis of personal interest, personal incentive and business principles."¹

¹ Lenin. *Selected Works*, Vol. 3, p. 696.

All socialist countries are improving the methods of economic management and planning. Since 1958, the German Democratic Republic, Poland, Czechoslovakia and some other socialist countries—have begun to reorganise their economic planning and management. These changes have been connected with the new tasks which have confronted the socialist countries as a result of the considerable development of their productive forces and curtailment, to a certain degree, of the extensive ways of economic development.

Reforms in these countries are diverse, but they have a number of common features. Their aim is to devise a more flexible system of economic management conforming to the demands of socialist commodity production. Emphasis is now laid on the greater use of economic instruments such as taxation policy, credit, price policy and others, rather than on the administrative methods of planning.

In a number of countries various types of associations operating on a cost accounting basis have been set up instead of administrative centres. These are sectorial associations (covering all enterprises in a given sector), area-sectoral associations (when there are many enterprises in one sector) and associations of enterprises in different sectors connected by production cooperation.

The establishment of associations operating on a cost accounting basis has been marked by greater economic independence of enterprises. In view of this, the number of obligatory targets in plans of associations and enterprises has been

reduced. The latter have acquired definite independence in choosing the assortment of goods produced, setting prices and concluding direct contracts with other enterprises and trading establishments.

The system of material incentives to enterprises is being steadily broadened in the socialist countries. Enterprises are interested in the actual economic results of their operation and not only in fulfilling the plan targets. This is achieved by making the funds at the disposal of enterprises dependent on their incomes.

At the same time all socialist countries are improving the methods of centralised planning and are raising its scientific level. Econometric methods are increasingly applied for better elaboration of draft plans. Alongside the elaboration of long-term plans, central agencies determine basic principles of material stimulation: the size of contributions by enterprises to the state budget and reserve funds, principles for participation of enterprises in financing capital construction, the rights of enterprises and associations in setting prices for the goods they produce and other questions of economic relations.

The use of economic instruments, of cost-accounting relations, has always been the basis of managing and planning the socialist economy. In some periods, especially during the war and restoration period, economic instruments were relegated to the background, but this was dictated by definite economic circumstances. Mistakes of a subjectivist type committed by some leaders have also played a negative part.

All this, however, has not changed the fundamental principles of socialist management. Now that the main difficulties are overcome, economic instruments hold an ever bigger place in regulating the national economy. Managerial personnel and workers of enterprises, theoreticians and practical economists are jointly searching for an optimum relationship between centralisation and economic independence, between direct influence on production and its indirect regulation with the help of prices and market relations. Price formation, profit, interest and direct economic ties between enterprises will be utilised even more fully for the utmost stimulation of production collectives and each worker.

The ever wider employment of economic instruments, far from undermining public ownership, which is the basis of socialism, aims to satisfy social requirements, makes for fuller use of all the advantages of the new social system and its internal resources. The employment of all forms of material incentives raises labour productivity. Enhancement of the role of profit makes an enterprise operate more efficiently, tap internal potentialities more fully, improve the assortment and quality of goods so as to guarantee their sale. The introduction of payment for assets will stimulate their more proper use and reduce idle time at factories. The establishment of direct ties between producers and consumers will enable industry to take into account the public demand more precisely and in good time. In this connection we can ask critics of our system a legitimate ques-

tion: since when has a rise in labour productivity, better use of productive assets and fuller account of public needs become incompatible with socialism? In reality, this is a further development and consolidation of its basis. Moreover, if use is made of experience existing abroad, including the experience of capitalist corporations and monopolies, this merely shows that the socialist economy has never fenced itself off from everything valuable in the world practice.

The Plenary Meeting of the CPSU Central Committee held in September 27-29, 1965, was a major landmark in improving the principle of democratic centralism in economic management and planning. The Plenary Meeting summed up the extensive theoretical and practical work done in this sphere in the Soviet Union and the other socialist countries in recent years. The main purpose of the Plenary Meeting's decisions is to ensure the most proper combination of centralised planning with broad economic initiative of enterprises and provide greater economic stimuli to industrial production.

To achieve the best combination of centralised planning with the full development of cost-accounting relations, the Plenary Meeting outlined the following principal directions in improving the forms of planned guidance of the economy as a whole and the methods of management at each enterprise: first, to raise the scientific level of state economic planning and the role of long-term plans; second, to broaden the economic independence and initiative of indi-

vidual enterprises and economic associations and to elevate the role of the enterprise as the main economic unit of the economy; third, to increase economic stimulation of production with the help of prices, profit, bonuses and credits.

The meaning of these far-reaching changes in planning and directing the Soviet economy does not consist in counterposing centralism to the economic initiative of enterprises and individual citizens, or in renouncing the basic principles of state planning but in the cost-accounting relations and economic stimulation with centralised planning. Under new conditions both centralism and democracy are not reinforced at each other's expense, but receive new development. The dialectical nature of the Leninist formula of "democratic centralism" presupposes that the extension of economic independence is possible only if the level of centralised planning is raised, while the latter can be achieved only if each enterprise and each citizen are interested in fulfilling the state plan and have the opportunities for doing it.

In conditions of public ownership, the key elements in developing the economy (growth rates, sectoral structure, main products, allocation of capital investments by sectors, price policy, utilization of manpower resources, and so on), can be ascertained only by proceeding from the national economic interests, the general interests of the people. But how to manage current production and utilize the resources available in individual units of the economy—this must be decided by the enterprises and production associations themselves, which are guid-

ed by the central agencies with the help of economic instruments—prices, profit, credit. Moreover, a vast extension of direct ties between producers and consumers is expected: with their help it is possible most successfully to coordinate, both from above and below, production and the growing needs and demands of the population.

At the present stage the role of centralised planning increases, its implementation becomes more complicated and the demands made upon it are getting higher. State centralised planning does not mean the issue of orders from above; it is the formulation of what may be called the general aims and requirements the socialist society sets before its separate parts. This applies both to the relations of the Gosplan of the USSR with the ministries and republics and to the relations of the latter with enterprises or production associations. The central agencies must define the directions of technological progress, determine the social needs and production resources, expediently distribute resources between producers and then ensure the most efficient fulfilment of state plans, not by orders, but by employing economic stimuli.

Enterprises and associations have the opportunity to find their own ways for meeting the main demands of society, they are given the utmost independence in managing current production, in finding additional reserves and providing incentives to their workers. At the same time they bear full responsibility for the quality of output and efficiency of industrial production. All these conditions predetermine successful

cost accounting.

Further development of democratic centralism enables the Soviet economy to put to the foreground the problems of economic profitability of production and better quality of output and ensures the fullest satisfaction of the needs of the economy and the population with the smallest outlay of social labour.

ECONOMIC FORECASTS AND CAPITALIST PROGRAMMING

The forms and organisation of capitalist programming in individual capitalist countries differ. On the whole, the tendency is as follows: the greater the share and role of the nationalised sector, the more detailed the programme of economic development and the greater its economic significance.

Let us first of all mention *economic forecasts*, a type of economic calculation which is not a programme as such, but a necessary prerequisite for it. National forecasts are elaborated in almost all the developed capitalist countries, even where there is no programming. We want to devote special attention to forecasts not only because they precede programming, but also because in many cases (if not in most of them) capitalist programming does not go beyond the bounds of forecasts, and not everything called a plan is in fact a plan.

A definition of forecasting and its distinctions from planning, from programming, is given rather concretely and uniformly in Western

literature. "Economic forecasting profoundly differs from planning, for which it serves as a necessary initial basis. In present-day conditions it already presupposes interference by the state."¹ Or, as Tinbergen puts it, "by forecast we mean an estimate of the future economic situation under the assumption that there will be no change in economic policy."² Thus forecasting consists in foreseeing economic development if it proceeds in conformity with the shaped tendencies and the operation of the market forces.

Forecasting is merely a passive reflection of the market tendencies, an attempt to predict these tendencies without affecting them. It is clear that the very possibility of forecasting is of great economic significance because it enables an economist to adapt himself to the changes in the market situation. Forecasts may be compared to a barometer which predicts changes in the weather without influencing it in the least.

The passive nature of forecasts fully conforms to the possibilities which exist in the majority of capitalist countries as regards regulating private enterprise and the market, especially if there is no nationalised sector or if it is small.

Capitalist programming in these countries is not far advanced from forecasting. In many cases programming boils down to defining measures which bring the economy in conformity

¹ *La planification française, Notes et études documentaires*, No. 2846, December 30, 1961, p. 4.

² J. Tinbergen. *Central Planning*, p. 9.

with the demands of the market, without changing the market tendencies themselves. Not to place the ship of capitalism under the blows of stormy market waves but to cut them with the prow—this ultimately is the aim of capitalist programming, which in many cases coincides with forecasting. That is why planning in countries with a predominant private sector in essence cannot emerge beyond the bounds of forecasts. "In countries with a large private sector," Tinbergen writes, "sectors plans will be more in the nature of forecasts than of plans."¹ To this we might add that not only sectoral plans but national plans in these conditions are "more in the nature of forecasts than of plans."

The impossibility of advancing far from forecasting to real economic planning is connected with the fact that basic decisions are made in the private sector by individual capitalists and monopolies. Owing to the mutually contradictory nature of these decisions, they cannot be added up to result in a national programme. In these conditions a national programme turns into more or less a forecast of what the resultant tendency of the interaction of independent and mutually contradictory forces will be. The aim put forward in such a programme will be real only if it corresponds to the spontaneously shaping tendency of economic development. "We shall frequently use the word 'target' in this report," state the authors of the French Fourth Plan, "but there should be no misunderstanding as to its meaning. In the Fourth Plan, as in the

¹ *Op. Cit.*, p. 15.

third, the 'targets' are not obtained by adding up a set of 'programmes' of production, exports and investment of individual firms. The figures given represent forecasts based upon a study of the home and foreign markets for each individual branch of industry, and upon a certain number of general hypotheses."¹ Consequently, the existence of national aims does not turn the forecasts into a plan, inasmuch as the real decisions are taken by private firms and monopolies, while economic tendencies exist as market forces uncontrolled by society. For this reason capitalist programming seldom, and with difficulty, goes beyond forecasts.

As regards nature and methodology of elaboration, forecasts can be divided into two types. The first is economic forecasts based on various econometric models which reflect more or less intricate functional dependences between economic variables. The second type is the construction of empirical dynamic rows of forecasting indicators and the assessment, on their basis, of possible trends.

Forecasts on the basis of econometric models are elaborated mainly in the United States, Britain and Holland.² They consist of descrip-

¹ *Rapport général de la commission des industries de transformation*, 1962, Paris, p. 15; I. Hackett, A. M. Hackett, *Economic Planning in France*, London, 1963, p. 172.

² P. E. Smith. "Econometric Growth Model of the United States," *American Economic Review*, September 1963, No. 4; L. Klein, R. Ball, A. Hazlewood and P. Vandom. *An Econometric Model of the United Kingdom*, Oxford, 1961; P. Verdoon and C. I. Vanerik. *Experimental Short-Term Forecasting Models*, Central Planning Bureau, Weltwirtschaftliches Archiv, 1958, Band 92, 1964, Heft 1.

tions of the economic growth with the help of models in past years and the use of these models for the future. The high mathematical precision of these models at times creates the illusion of conformity of forecasts, drawn up on this basis, to reality. The spontaneous nature of the capitalist market and limited possibilities to influence the private sector turn the forecasts, together with their models, merely into an illustration of what could happen if the economy developed in conformity with the assumptions built into the models. But the market swiftly makes for discrepancies between any assumptions and reality. "The dependences between economic factors we establish," Prof. M. van Meerhaeghe remarks, "which are then laid at the basis of individual equations and entire models prove effective only for a definite period... That is why the use of analytical data rests on a whole series of hypotheses which by far not always correspond to reality."¹ In these conditions the scepticism of the Dutch econometrist Haavelmo is fully justified. "There is the real possibility," he writes, "that as we devise more and more improved methods, we shall draw nearer to realising one unpleasant fact: economic 'laws' do not yield to exact measurement and, therefore, we live in an imaginary world of big, but largely superficial or false relationships. We, of course, can refer, as always, to poor statistics. But, I think, we can find part of the explanations in another direction, namely, the inadequacy of the basic economic theories

¹ M. van Meerhaeghe. *Op. Cit.*, p. 42.

and somewhat passive position of many econometricists in the axioms they choose and in the wrong economic content of the models we work with.”¹

While the first type of forecasts is interesting from the standpoint of the mathematical apparatus used, the second type, based on empirical dynamic rows, has greater economic content. The most outstanding examples of forecasts of the second type are those on economic development of the United States up to the year 2000, mentioned before (*Resources in America's Future*) and on US development up to 1970, elaborated a few years earlier.² These forecasts estimate the future total demand, on the one hand, and the possible resources, on the other; the resources are deduced from the dynamics of the main factors of economic growth (number of employed people, productivity, possible growth in individual sectors).

The methods of these forecasts as such are interesting, but the initial premises are shaky and present an unstable foundation for a sufficiently imposing and carefully elaborated edifice of forecasts. This instability of the foundation is due to the fact that the scientists study not real possibilities but potentialities. *Long-Range Projections for Economic Growth: the American Economy in 1970* points out that economic forecasts are a means for bringing out the econo-

¹ S. Nikitin. *Critique of Econometric Theories of 'Planning' the Capitalist Economy* (in Russian), Moscow, 1962, p. 17.

² *Long-Range Projections for Economic Growth: the American Economy in 1970*, Washington, 1959.

mic potential.¹ The authors dovetail in the forecasts the requirements with the resources as though in conditions of the capitalist market they are directly connected, as though resources are used to satisfy social needs, while the growth of consumption automatically leads to an expansion of resources. Such a connection does exist, but only in socialist society. Private ownership and the capitalist market hamper a direct connection between needs and resources and lead to the overproduction of capital and goods, to a slow growth of the effective demand. To abstract oneself in forecasts of capitalist economic growth from the market, from the problem of realisation, means to abstract oneself from the very essence of the economic system and to build hypotheses divorced from reality. This is all the more wrong at present when the gap between the demand and production is constantly increasing. US Senator Fulbright pointed out in his speech of April 4, 1964: "As a result of the rapidly spreading automation of the American economy, the traditional mechanism of distributing purchasing power through employment and income is breaking down. In essence, our ability to generate economic demand is falling steadily behind our ability to increase the supply of purchasable goods and services. It may be that the growing disequilibrium is so profound as to be irreversible by government policies designed to stimulate economic growth and full employment."²

¹ *Ibid.*, p. 1.

² *The New York Times*, April 5, 1964.

INDICATIVE PLANNING

Forecasting, combined with the aims and methods of its achievement, signifies programming proper, according to the terminology accepted in the West. The boundary between forecasts and programming is arbitrary, because, first, a forecast is the starting point for elaboration of an economic growth programme and, second, as we pointed out earlier, in many cases programmes hardly differ from forecasts.

The main things that set programming apart from forecasting are determination of aims of economic development and attempts to restrict or modify in a desired direction the operation of market tendencies with the help of state interference, inasmuch as the market by itself does not ensure the achievement of the aims wanted. "In predominantly private enterprise," it is pointed out in materials of the United Nations, "planning by its very nature implies that governments are seeking to create a different level and structure of production than would be generated by the market forces alone."¹ These differences turn forecasting into programming. "Planning differs from pure forecasting in that it is based on the assumption that the future course of production and other economic variables can be influenced, and it aims at indicating the most desirable course."² The

¹ *Planning for Economic Development*, United Nations, N. Y., 1963, p. 18.

² J. Tinbergen, H. Bos. *Mathematical Models of Economic Growth*, 1962, p. 4.

broaden the economic functions of the state, the more fundamental the differences between programming and forecasting.

"The state can limit itself to some influence on the economic situation and employment... If, however, the state decides to go farther, formulating the basic tasks of production as a result of agreements between interested individuals, it necessarily arrives at indicative planning which has arisen as a natural supplement to economic forecasting and a guarantee of its efficiency. Differing from forecasting, planning presupposes decisive influence on economic phenomena. Proceeding from data provided by forecasting, it presupposes aims and methods of their achievement by influencing the course of the economy."¹

A definition of capitalist programming is fully contained in the concept of *indicative planning*, which is counterposed, according to the terminology accepted in the West, to imperative or directive planning. According to the definition of Prof. Bénard,² a plan is considered *imperative* if it is applied with the help of orders and instructions emanating from a centre and affecting all enterprises. Bourgeois economists place in the category of such planning centralised collective planning which is in force in the Soviet Union and the other socialist countries. A plan is considered *indicative* if it meets two

¹ *La planification française. Notes et études documentaires*, No. 2846, December 30, 1961, Paris, p. 7.

² L. Bénard. "La marché commune européen et l'avenir de la planification française," *Problemes economique*, December 8, 1964.

conditions: The first is that alongside tasks defined for the entire nationalised sector of the economy or a part of it, the plan recommends some prospects of development, terms of sale, capital investment and financing, which are non-obligatory for individual firms, enterprises and economic agents making up the private sector. The second condition is that the plan does not replace the demands of market, but acts through indirect, market instruments of economic policy to achieve the outlined prospects. The direct instruments are most frequently of a financial character: taxation, credit and the public expenditure.

A number of conditions are needed for implementing indicative planning. The main ones are: the existence of a more or less considerable nationalised sector and the elaboration of a general economic policy on the nation-wide scale.

Thus, the meaning of indicative planning is that it is strictly recommendatory as regards the private sector. Since the private sector prevails in all the countries of capitalism, owing to which they remain capitalist, a natural doubt arises as to the real importance of indicative planning. This doubt is dictated by complete economic dissociation and more than that, by the dominating position of private firms and monopolies whose decisions, as we pointed out earlier, cannot be coordinated in any way. If there is no possibility in principle to coordinate general and private decisions what then is the plan? It may be called a "national" goal, a "concerted" economy, or even, as President

de Gaulle put it, a "fervent obligation," but this will not make it what is desired—a national plan of coordinated economic development. Comparing an indicative plan with an imperative plan, notwithstanding all the critical remarks about the latter, no one can take away its main feature, namely, that it is a plan. As to indicative planning, despite its flexibility, the lack of this main feature is very suggestive. We certainly are not trying to explain this by any particular personal merits, say, of Soviet planners as compared with French. The high professional competence of French, Dutch, British and other economists in the capitalist countries is not challenged by anyone. The crux of the matter evidently is in the objective conditions, in the compatibility of the indicative plan with these conditions. It was pointed out in the report on the French Fourth Plan that one of the contradictions of indicative planning is the determinism of the plan and indeterminism of the events and behaviour of those for whom it is designed.

"...The main task of indicative planning 'theoretically' is to coordinate the projects accepted by autonomous enterprises. The physical and financial syntheses consist in coordinating these two parts between themselves and with the prospects of the internal and external final demand and the tasks of the state. 'Theoretically,' because most often these projects remain secret and cannot be taken into account by the agencies elaborating the prospects for the development of each sector... They have to contend themselves with calculations in the form of

'forecast programmes' expounded in global terms, which are not binding on anyone. The exception is the nationalised sectors... and to a lesser extent some of the highly concentrated private sectors of heavy industry (the metallurgical and chemical industries)."¹

And so, as regards the private sector, indicative planning cannot be anything else but a "forecast programme," which is not binding on anyone. Its efficacy in the nationalised sector merely proves that public, state ownership creates conditions for realistic planning. "The one area of economic activity," United Nations experts note, "where the link between the aims of the plan and measures for their implementation has been direct and close is the public sector."² That is why the aspiration to enhance the importance of the plan in the economy is connected with the attitude to the problem of nationalisation. And the combination of the plan with the nationalised sector is actually what is called imperative planning.

Capitalist programming, defined as indicative planning, is not something uniform; it has definite shades which develop into essential distinctions. These distinctions are mainly connected with the degree of state interference in the economy and the role of the nationalised sector. In countries where the interference of the state and the role of the state sector is minimal, progam-

¹ L. Bénard. "Problèmes et instruments de synthèse d'un plan indicatif," *Cahiers de l'institut de science économique appliquée*, series P., Paris, 1958, p. 4.

² *Planning for Economic Development*, United Nations, N. Y., 1963, p. 46.

ming differs little from forecasting; in other countries programming assumes a more structural and detailed character. Similar distinctions may exist in each country as regards different sectors of the economy.

CONJUNCTURAL PLANNING

So-called *conjunctural planning* is the most limited in its functions of all the types of indicative planning. The purpose of capitalist programming of this type is to achieve economic equilibrium: full employment, equilibrium of the balance of payment, stability of internal prices, etc., but not a structural change of the economy, not the solution of concrete economic problems. Of all the types of capitalist programming this one undertakes to tackle the most acute problems in the majority of capitalist countries. Conjunctural planning is anti-cyclical by its nature i. e. it is designed to prevent crisis phenomena. It conforms to the ideas of Keynes, who held that state expenditure and the use of monetary and financial instruments are the most effective methods of state interference.

Conjunctural planning, applied in almost all capitalist countries, has been most developed in Holland. The Central Planning Bureau of Holland elaborates long-term forecasts, annual forecasts and annual programmes. It has compiled a 20-year forecast up to 1970 along macro-economic lines, together with a multi-sectoral forecast for the same years. The annual forecasts and plans of the Bureau are of special signific-

ance. The forecasts do not include recommendations, but contain merely suppositions about the future economic situation.

The annual plans of the Central Planning Bureau deal in the main with governmental policy in wages, taxes and credit. "The general objectives which the Government pursues are the preservation of full employment, the maintenance of price stability, and the maintenance of balance-of-payments equilibrium. These are the fixed targets. In addition, there are flexible targets, such as rapid economic development and the maintenance of a socially equitable income distribution."¹ The annual plan is taken into account as a recommendation in drawing up the annual national budget.

Thus, conjunctural planning which has been most developed in Holland takes the economy as a whole as its object and the achievement of equilibrium as its goal. Especially significant is the fact that the problem of economic growth as such is relegated to the background. Priority given to problems of equilibrium over those of growth is the main distinctive feature of conjunctural planning, which reflects objective economic conditions. The achievement of equilibrium in capitalist conditions is far from equivalent to the highest possible growth rates. Moreover, even individual elements of equilibrium are often incompatible. For example, in many cases full employment runs counter to the achievement of a

¹ S. Wellisz. "Economic Planning in the Netherlands, France and Italy," *The Journal of Political Economy*, Vol. LXVIII, June 1960, No. 3, pp. 263-264.

favourable balance of payments. For small countries like Holland the need for conjunctural planning is also connected with the exceptional role of foreign trade in their economy and the impossibility to predict the influence of the world market. All these cause the extensive spread of this type of capitalist programming.

STRUCTURAL PLANNING

Conjunctural planning exists as an integral element in all countries which utilize methods of capitalist programming. But some of the countries have gone farther in trying to solve, with the help of these methods not only problems of equilibrium, but also of economic growth and structural changes in the economy. In such cases the object of planning is not only the economy as a whole, but also its sectoral or area structure. Frequently, priority is given to some sector or economic area. That type of indicative planning has come to be known as structural. The existence of a considerable nationalised sector and government programmes for building production complexes and new industries or developing backward areas are objective prerequisites for such planning.

Among programmes of this type are, for example, the comprehensive programme of industrialising the south in Italy, polders projects in Holland, the Borinage Project in Belgium, the Green Plan in West Germany and the creation of an atomic industry in France. The economic significance of these programmes is indisputable,

although they are of a partial nature and do not yet make up a national plan.

Indicative structural planning has been more developed in countries with large nationalised sectors. This applies above all to France, in considerable measure to Italy and also to some Scandinavian countries (for example, Norway). There is no doubt that structural planning has quite concrete meaning with regard to the state sector. The obligatory nature of the plan as regards the nationalised sector predetermines its imperative nature, which makes for definite reality of structural planning of this sector. "It is essentially in relation to the public sector that the obligatory character of the Plan appears."¹ "The impact of the plan on the nationalised industries is felt at two points: firstly, when the output objectives are fixed and, secondly, when their financing is considered. The difference from the private sector is, of course, marked. The public character of these industries means that they can be obliged to conform to a Plan if need be. Again, as the nationalised firms are usually in heavy industries but, unlike private firms, have no resource to equity capital financing, nor very large self-financing possibilities, they depend upon public funds for investment purposes and this situation gives the state an opportunity to influence their operations."²

But, structural planning goes farther: it transcends the bounds of the nationalised sector and governmental projects and seeks to intro-

¹ I. Hacket, A. M. Hacket. *Op. Cit.*, p. 233.

² *Ibid.*, p. 242.

duce planning into the entire economy. In such cases structural planning goes into great detail and covers all sectors. French planning, which "is the most advanced example of such a system in an industrially developed economy whose essential structures remain capitalistic,"¹ has advanced farther along this road than any other country. Its object is the national economy as a whole and especially the state sector, the sectoral structure of the economy and also individual projects. French programming includes everything connected with the physical aspect of reproduction, as well as finances, taxes and prices.

Some Western economists even compare French programming with Soviet planning, considering that the first approaches what is called imperative planning in its scale, methods and detailing. "The method of preparation of the French short-term plans is strongly reminiscent of the approach used in the Soviet Union. In both cases over-all plans are drawn up by the planning authority, modified on the operating level, and coordinated once more by the planners. In both cases reliance is placed on physical balances."²

While the main task of conjunctural planning is to maintain economic equilibrium, the structural planning, incorporating the programme of equilibrium, concentrates on accelerating economic growth rates and changing the sectoral structure.

¹ *Ibid.*, p. 9.

² S. Wellisz. *Op. Cit.*, p. 270.

Conjunctural planning is based practically on the assumption that the actual domination of private capitalist firms and monopolies in the economy does not create objective conditions for the direct planning of the national economy, its growth rates and structural changes. And the main function of conjunctural planning is to mitigate contradictions between the participants in production and distribution.

Structural planning is much more ambitious in its aims. It presupposes interference in production as such, its growth rates and its structure. The achievement of a definite growth rate of the national income is the primary task in the national programmes of France, Britain, Italy, Japan and other countries. In Britain the aim is a 4 per cent annual growth between 1961 and 1966; in France a 5.5 per cent growth from 1962 to 1965; in Japan the target is to double the national income between 1961 and 1970, and so on.

A change in the sectorial structure, envisaged in structural planning, is its most important distinction from conjunctural planning. French plans, drawn up in detail by sectors, attempt to give priority to certain industries. For example, in the First Plan chief attention was given to the basic raw material industries (coal, metal, cement) and in the Fourth Plan, to the chemical industry and some branches of engineering. It is significant that some French economists proposed to vary the indicative nature of the plans with regard to certain sectors, bringing it up to imperativeness for some sectors. "Planning must be decidedly imperative in what

one can call the basic sectors—public investments, town planning and credit—and must then leave more and more liberty as we get closer to products put at the disposal of individuals.”¹

The distinctions in the sectoral structure planning depend on the industries comprising the nationalised sector. Inasmuch as in France, for example, electric power, coal and gas are almost completely produced within the state sector, there are some objective prerequisites for the planning of these industries, whereas in industries where private firms and monopolies prevail, it in effect cannot go beyond the bounds of conjunctural planning.

What methods of a non-financial nature are utilized in structural planning to influence industries in which the nationalised sector is either absent or its role is insignificant? It is suggested, firstly, to influence individual entrepreneurs and monopolies through the establishment of the infrastructure (transport and communication networks, electric power stations and transmission lines, public utilities, educational and health establishments). Since investments in the infrastructure in the main are less profitable than in basic sectors, it is proposed that the state make the less profitable or even unprofitable investment, which would stimulate private investment in the basic sectors. The Vannoni Plan provides for such a concept of planning. Developing countries are urged to adopt

¹ G. Levard, president C.F.T.C., quoted by Mendès-France, *La république moderne*, Gallimard, 1962, p. 157; see I. Hacket, A. M. Hacket. *Economic Planning in France*, p. 352.

the same methods. "Because of the low, or non-existent profit to be made on such activities, the original expense must almost certainly be carried by the government. Much development along these lines must go on as a preliminary to private-enterprise investment in profitable lines of manufacturing."¹

The use of state investment in the so-called propulsive sectors, which exert a cumulative effect on private investment in all sectors, is suggested in a number of plans as a second method of a state influence, through its economic programmes, on the structure of private capitalist production.

Investment in the propulsive sectors is called upon to stimulate investment in all other sectors because it increases the direct demand for deliveries to cooperated sectors (for example, cement necessary for public works); second, the consumer demand, arising in these industries, stimulates demand in others; third, the growth of investment in the infrastructure reduces production outlays in the private sector, raises profitability of investment, and thereby stimulates an expansion of production. For example, the Vanoni Plan called for investing 11,000 million lire of state funds in the propulsive sectors, which had to stimulate private investment of 10,600 million lire and provide 3.2 million new jobs. In France, influence on private investment to bring about structural changes is exerted mainly through the volume of credit and

¹ W. Gordon. *International Trade, Goods, People and Ideas*, N. Y., 1958, p. 601.

the interest rate. Sectors given priority in the national plan enjoy easier credit terms (a lower interest rate, etc.).

In a number of instances capitalist programming thus aims to change the structure of production in the desired direction. In such cases the object of programming is not only the national economy as a whole, but also individual sectors. The legitimate question arises, however: if economic decisions are taken at individual enterprises, by individual firms and monopolies, what is the real value of structural planning?

Both the national economy and each sector represent a totality of units (enterprises, firms, associations) which engage in production. Is it possible to ensure the planning of totalities if the units making them up are not planned?

We have already mentioned the generally recognised fact that direct connections between the planned targets and economic decisions is possible only in the nationalised sector. As for the private sector, no such connections can be there because the full economic independence and the dominating position of private enterprises, firms and monopolies preclude any chance of directly influencing them from positions of the national plan. "The state," Bouchet notes, "is not the owner of private credits and sources of financing; its interference has limits and some sectors may not fulfil the plan. The plan and the programme of a firm are not always compatible."¹ The impossibility of determining the trend of private capital investment in

¹ P. Bouchet. *La planification française*, Paris, 1962, p. 206.

conformity with the national plan undermines the very foundation of structural planning and makes any estimates as regards the structure of the private sector quite illusory. Pointing to the specific features of programming in the capitalist countries, UN experts noted: "An important operational problem in these countries is the application of governmental measures to bring private investment decisions into conformity with the aims of plans... In these countries national plans have often indicated targets for output and resource allocation only at the level of the major sectors of production or of major industrial groups; more detailed targets for individual industries or commodities have not been specified.

Since a high proportion of investment decisions, particularly in the productive sectors, is in private hands, it has not been deemed worth-while to work out production and investment plans in detail. By the same token, however, this absence of detailed targets has rendered more difficult the task of managing those governmental measures designed to influence private investment decisions."¹

What in reality is capitalist programming, including structural planning, if it in principle is incapable of determining the activity of the private sector, especially private capital investment? Let us reply to this question with a statement of a Western economist: "...Plan is not a plan for firms but for branches. This means that

¹ *Planning for Economic Development*, United Nations, 1963, N. Y., p. 18.

there are no precise objectives for each firm... In other words the plan remains largely an exercise in macro-economics.”¹

WHO DRAWS UP THE PLANS

The reality and efficacy of planning also largely depend on how it is connected with public opinion and the daily activity and interests of the working people. If the direct producers are far removed from the plan, if they are not interested in its fulfilment, the plan remains merely a product of administrative activity, a document and not reality. “The Plan,” as Prof. Duverger points out, “is not only an economic programme whether we like it or not; it is a programme for action by the nation, the framework for its life, and the rhythm of the plan should be the rhythm of life of the nation as a whole. If we want democratic planning, the nation must be able to appoint at one and the same time the people who are going to complete the drafting of the Plan and are going to apply it during most of its duration.”²

How can the working people participate in planning if there is no opportunity for workers and other employees to directly participate in elaborating plans at enterprise level? In such cases it is recommended to enlist repre-

¹ I. Hacket, A. M. Hacket, *Op. Cit.*, p. 352.

² *La planification démocratique. Cahiers de la République*, December 1961, January/February 1962, p. 483; quoted by I. Hacket, A. M. Hacket. *Economic Planning in France*, p. 337.

sentatives of the trade unions in various commissions. But it is clear that business circles will always have an advantage in these commissions, because real economic power is in their hands. And P. Bouchet is quite right in asserting that "...though the workers have their representatives in such agencies as the General Planning Commissariat, decisions evade them."

In other developed capitalist countries plans and forecasts are a result of the activity of government and of special research organisations; they are elaborated by scores, at most, hundreds of people—in the main civil servants, specialists and businessmen.

Economic Substantiation of Plans

Fundamental differences in the content and functions between socialist planning and capitalist programming lead to the use of different methods of calculation for planning purposes. These distinctions consist not only in *what* is planned and for *what purpose*, but also in *how* it is done. At the same time, the methods of socialist planning and those of capitalist programming have some common features connected with the applied aspect of the question—above all the use of mathematical methods and electronic computers.

Differences in methods of substantiation of plans reflect the fundamental distinctions of the

theoretical principles and methodology of planning, on the one hand, and programming, on the other. In a small book like this it is impossible to compare in detail the methods of socialist planning with those of capitalist programming. We shall merely indicate some of the essential differences and then outline the methods applied for substantiating the national plans for the development of socialist economy.

DIFFERENCES BETWEEN METHODS OF PLANNING AND PROGRAMMING

The methodology of socialist planning rests on Marxist-Leninist economic theory. Capitalist programming proceeds from the postulates of bourgeois political economy where a decisive role belongs to Keynesianism and the modern theory of economic growth.

The fundamental difference in the initial concepts of treating economic processes of social production has a decisive impact on the essence of planning and its concrete methods.

Socialist planning is of a class nature; it reflects the interests of the working people. State plans are a prime instrument for strengthening socialist relations of production. This task of national economic planning has always been clearly defined and is practically carried out in all socialist countries. That is why the social aspect has always been one of the main features of socialist planning.

Capitalist programming seemingly tries to "rise" above class interests, to be the "middle"

way. We have mentioned earlier to what shore this "middle" way leads. Though there is obvious concord and community between capitalist programming and the interests of private firms and monopolies, its class nature is camouflaged in every way possible. Among the methods used in this case, mention should be made of the ignoring of or insufficient attention paid to the social, class aspect of plan calculations. An analysis of class groups, of the social structure of the economy and other social aspects are absent from the economic development plans of the capitalist countries.

Marxism-Leninism equips socialist planning with understanding of the objective laws governing social development. Plans are founded on the laws of socialist reproduction. The content of socialist planning stems not from subjective assumptions and wishes. The materialism of Marxist-Leninist economic theory enables planning to stand on the ground of reality, not to break away from the objective trends of economic development and purposefully utilize them in communist construction. But this does not imply neglect of subjective factors, of everything that comprises the policy, social and individual psychology, ethics and ideas of the new society. Moreover, the role of subjective factors is constantly growing, particularly as a result of the influence exerted by scientific achievements on practice. Socialist planning takes into account the sum-total of subjective factors whose proper use accelerates progressive development and whose neglect may lead to failures even when the material resources are adequate.

Capitalist programming, based on the idealist nature of bourgeois economic theory, ignores objective tendencies of economic development and treats many categories not as a cause but as a consequence of subjective factors. Bourgeois theoretical and practical economists like very much to rummage in the most insignificant psychological phenomena and study non-existent relationships. Keynes asserted, for example, that in assessing the prospects of investments account should be taken of the nerves, inclination towards hysteria and even indigestion and reaction to a change in the weather of those on whose arbitrary actions these investments chiefly depend. It is clear that lumping together subjective and objective, decisive and secondary factors makes the knowledge of economic processes more difficult and thereby limits the possibilities of capitalist programming to actually influence practical activity. This does not preclude, however, the chance of discerning really important laws and dependences and utilizing them in capitalist programming. Many bourgeois economists engaging in practical questions actually depart from idealistic constructions, but achieve this mainly in an empirical way.

Socialist planning and capitalist programming fundamentally differ in their approach to the sources for the building up of national income. One of the principal objective laws discovered by Marx is that all material wealth is created by the labour of workers in the productive sphere: industry, agriculture, construction, transport, and the sphere of productive services. Marxists distinctly separate the sphere of production, where

the elements of the national income are created, from the non-productive sphere (education, health services, science, culture and administration), which functions on the basis of a redistribution of the national income. This does not mean that the labour of workers in the non-productive sphere is something secondary. It is as essential as the labour of any worker and peasant. But material wealth as the requisite for the existence of the whole society is created in the productive sphere and only on this basis the existence of all kinds of non-productive activity is possible. It is from this objective fact that the principles of socialist planning follow: in socialist planning the labour of people engaged in the productive sphere is regarded as the sole source of the national income. At the same time this leads to understanding—and this is taken into account in the plans—that only the growth of material production and labour productivity in this sphere can serve as a basis for extending the non-productive sphere and satisfying more fully all the cultural requirements of members of socialist society.

Capitalist programming, just as statistics, is based on the assumption that any labour, any kind of service, if it can be sold on the market, becomes a source of the national income. Moreover, various kinds of resources are regarded not as concrete forms of social labour but as isolated factors—labour, capital, science, the business abilities of an entrepreneur, land, etc. Social labour, as the sole source of national wealth and the basis for a just distribution of incomes, thus disappears. In other words, it is

sufficient for one to receive a large inheritance from one's grandmother to become automatically a producer of national income. Such theoretical premises distort the picture of real economic processes. It turns out that the national income is the sum-total of all kinds of paid services, and the individual factors of production are its source, while distribution is effected in conformity with ownership of these factors, as a result of which labour receives not more than half of the national income in all the developed countries.

Socialist planning proceeds from the knowledge and use of the objective economic law of proportional development. Correct proportions between sectors and elements of production are a requisite for normal growth. The concept of proportionality is basic in planning the socialist economy. Under socialism, proportions are established in a planned way; they are dictated not by a spontaneous market, but by the social needs and the requirements of technological progress. That is why emphasis is primarily laid on material proportionality, dictated by production ties in the economy, and also on the conformity between the material and value aspects of reproduction.

Capitalist programming deals not so much with material proportions and production ties as with market equilibrium. The theory of equilibrium, corresponding to this practice, has for its subject the relationship between demand and supply on the market. The formal equilibrium of demand and supply does not at all signify proportionality in production itself. On the con-

trary, this equilibrium is achieved through the underemployment of capacity for the manufacture of goods for which the supply exceeds the demand, increase of unemployment in periods of depression, reduction of consumption by the people, and spasmodic development of a number of "prospering" industries, which results in the economically unjustified ruin of other industries. Market equilibrium is achieved above all through the fluctuation of prices, the financial and credit system, an increase in the tax burden and in retail prices. Thus equilibrium, which is the object and purpose of capitalist programming, is not proportionality of production but a temporary balancing of the market forces.

There are still greater differences in the approach and methods of economic substantiation between socialist planning and capitalist programming as regards the efficient use of productive resources.

Problems of economic efficiency comprise the main content of socialist planning. Each capitalist, too, naturally strives for efficient operation of his enterprise. Attempts are also made to tackle problems of efficiency of the capitalist economy as a whole. But criteria of efficiency in case of public ownership and private ownership differ in principle. Maximum satisfaction of the social needs with the smallest total national economic outlays of all productive resources is the criterion under socialism, while maximum profit of the individual owner with the smallest outlays of the factors of production at his disposal is the criterion under capitalism. The fundamental difference consists in that socialist

planning proceeds from the interests of society as a whole, of the entire national economy, while capitalist programming, resting on private ownership, cannot but proceed from the interests of individual capitalists.

National economic efficiency under capitalism is merely a theoretical proposition but not a practical aim with adequate economic requisites. The far-reaching consequences of this fundamental difference in efficiency criteria will be examined in the section dealing with optimal planning.

COMMON FEATURES IN CALCULATION METHODS

Some concrete calculation methods utilized in socialist planning and in capitalist programming, especially the mathematical apparatus, are similar in many respects. The balance of the national economy, which is the methodological foundation of planning the rates and proportions of socialist extended reproduction, formally has the same functions as the national accounts utilized under capitalist programming. The sequence of drawing up economic development programmes on the basis of econometric models—forecast, macro-plan, multi-sectorial plan, and the estimation stage—proposed by a number of Western economists, basically coincides with the sequence of drawing up national economic plans in the socialist countries. The input-output system,

widely utilized in capitalist programming, is analogous in its structure to the inter-sectorial balance applied in socialist planning for substantiating the proportional development of the economy. But the similarity of instruments does not make for a similarity of aims and economic content.

The inadequacy of the methods of capitalist programming is connected with one of its basic contradictions. The methods utilized in elaborating economic development programmes proceed from the assumption that the object of capitalist programming is the entire national economy, while workable decisions in conformity with the programme can be applied only to the limited nationalised sector (if it exists at all). As a result the wish is presented as a possibility. In these conditions the methods of plan calculations may be likened to an engine working idly. These methods make it possible to bring out the potentialities for economic growth if there were no capitalist marketing problem and no cyclical fluctuations—in brief, if there were no private ownership of the means of production and capitalism itself. For example, the simplest dependence between growth rates and the share of investment, discovered by Harrod and Domar and widely utilized in macro-planning, by itself offers no possibilities whatsoever for stepping up the growth rate of the national income by increasing the share of investment in it. For this the method must rest on the possibility of adopting and implementing the necessary economic decisions.

In his book, *Essays in the Theory of Eco-*

nomic Growth, E. Domar himself draws such conclusions. "If the public is *willing* to save a certain part of its income, and the required rate of growth *can* be achieved," he asks, "why not concentrate our efforts to make this growth potentially real? This is the path that any socialist society would undoubtedly take."¹ But, Domar points out elsewhere, "a pure capitalist society is rather helpless in this respect."²

The methods of capitalist programming are often based on a set of instruments not applicable in conditions of private ownership, inasmuch as it does not correspond to the real possibilities of influencing the economy. That is why the achievements, registered in the United States, Britain, Holland and some other countries in developing econometrics, in effect cannot be utilised within the framework of capitalism. But they are studied and in a number of cases utilized in socialist planning. As regards many instruments applied in capitalist programming, we may repeat what had been said by O. Lange, noted Polish economist, about the input-output system of W. Leontieff: "Although this analysis has been applied for the first time in the economy of the USA, it is also applicable, like all input-output analyses, to the socialist economy. More than that, it seems to us that such an analysis will attain its full force only as an instrument of economic planning. Its techniques, although used for the first time in a capitalist eco-

¹ E. Domar. *Essays in the Theory of Economic Growth*, New York, 1957, p. 119.

² *Ibid.*, p. 118.

nomy, go beyond the historical bounds of capitalism and can play its full part only in a planned economy.”¹

The construction of some models of planning laws under capitalism in many cases is rather of an illustrative than practical nature. This is especially seen in the case of the input-output tables elaborated for a planned period. Such tables were compiled in France (for 1965), in Holland (for 1970) and in some other countries. These tables differ from the balances elaborated in the Soviet Union, not by their mathematical apparatus, but by the functions and methods of economic substantiation. The planned inter-industry sectorial balance, drawn up in the Soviet Union, for example, for 1970, is an intermediary stage between the synthetic and detailed plan calculation by sectors, between the balance of the national economy and the material balances of individual kinds of production. The plan input-output tables compiled in a number of capitalist countries do not stem from sectorial calculations, they remain multi-sectorial forecasts not laying claim to practical implementation.

The planned inter-industry sectorial balance of the USSR for 1970 is based on outlay coefficients estimated by designing and research organisations in conformity with the trends of technological progress envisaged for the plan period. Capitalist programming does not include

¹ O. Lange. *Some Considerations on the Analysis of the Input-Output System*, symposium “Application of Mathematics in Economic Studies” (in Russian), Moscow, 1959, p. 216.

among its objects technological progress which under capitalism occurs spontaneously. This precludes the possibility of planning direct outlay coefficients, and the input-output tables are based on rates of preceding years. For example, the input-output tables of France for 1965 are based on 1959 rates. Still more crudely was this problem solved in drawing up the multi-sectorial forecast of Holland for 1970. Though Dutch programming is considered one of the best substantiated, outlay coefficients for the end of the 1940's were utilized in this forecast and applied to the volume of possible production in 1970. This is the case in almost all models of capitalist programming if they are regarded not from the mathematical but from the economic and practical angles.

In contrast to capitalist programming, a plan model of the socialist economy is a necessary stage in the practical realisation of problems of the plan period. As long as the economic content of the plan model corresponds to the objective conditions and tasks of economic development, there is a practical possibility for translating the plan estimates into economic activity at all stages of production and distribution. It is under socialism that modern achievements in constructing econometric models can be most successfully used. We shall outline below the main methods applied in socialist planning for determining the growth rates and structure of production for a plan period.

PLANNING GROWTH RATES OF SOCIALIST ECONOMY

Global calculations of the general parameters of economic growth represent the first point in substantiating the plan from the angle of society's requirements and the possible resources for their satisfaction. Three interconnected and interrelated methods are used:

- determination of the dynamics of the social product and national income on the basis of change in the use of labour resources and the possible growth of labour productivity;

- substantiation of the growth rate of social production by the dynamics of fixed assets, capital investment and accumulation, and efficiency of their use;

- hypothesis of the volume and share of the consumption fund in the national income based on per capita consumption rates and projections for the development of the non-productive sphere.

The use of these methods rests on an analysis of the sum-total of factors and aspects of reproduction from which the main, determining independent elements of the reproduction process have been selected. The volume of production (social product and national income) and the utilised resources of living labour (labour resources) or of materialised labour (fixed assets) are initial among all the national economic indicators. On their basis the derivative indicators can be obtained by treating the initial indicators (labour productivity, output/asset or asset/output ratio, assets per worker, and

others). That is why determination of the labour resources and their use, on the one hand, and the fixed assets, capital investment and their use, on the other, are used as the two basic methods for synthetic plan calculations.

Parallel with these two trends, which represent a calculation of rates and levels of social production as regards the limited factors of reproduction, the approach from the standpoint of consumption requirements is used, since it is the rise in the living standard of the people which in the final analysis determines the efficacy of the plan.

In the process of calculation one of the parameters of the plan can be taken as an independent variable in conformity with one of the tasks of the plan period (for example, a reduction of the time spent in material production), while the other interrelated indicators are regarded as derivatives. Such calculations make it possible to compare different variants and trends of the plan.

It should be stressed that parallel calculations of all tasks are made; they intersect and correct one another. In the course of calculation extrapolations and temporary hypotheses are inevitable, and in the course of further estimates they are either clarified or rejected. One and the same indicator is considered at different stages from different angles: the need to ensure the given level of some indicator is examined or the economic possibilities of realising this task are determined. Gradual approximation results in coordination between resources and needs.

The sequence of calculations may be modi-

fied, depending on the duration of the plan period. For example, in planning production indices for a long period, indices of the living standard which it is desirable to attain at the end of the period may be chosen as the point of departure. The final results, however, can be obtained only on the basis of combining the indicated ways and aspects of plan calculations into a single whole.

DYNAMICS AND USE OF LABOUR RESOURCES

The first method consists in determining the possible growth rates of the social product and national income on the basis of an assessment of labour resources and fund of labour-time and their distribution by sectors, and the possible rise in the productivity of social labour.

This method of calculation begins with a demographic analysis of the birth and death rates, as well as of the sex, age and social composition of the population on the basis of which the total labour resources are ascertained. Depending on the duration of the working week for the plan period, the possible fund of labour-time can be established. In combination with the existing composition of the abled-bodied population and some preliminary considerations about the drawing in of new manpower these calculations make it possible to determine the dynamics of the labour force engaged in material production and the total time worked in this sphere.

In determining the possible rise in labour

productivity, use is made of both an analysis of existing tendencies and hypotheses of trends in the plan period which are then clarified in the process of calculation. The labour productivity indicator is determined on the basis of dynamics of both the social product and national income. Labour productivity is calculated both per person employed in material production and per man-hour expended in production. If the fund of labour-time is reduced, the dynamics of hourly labour productivity may be the only factor for expanding production. That is why special attention must be paid to the relationship between the dynamics of annual and hourly labour productivity.

Substantiation of the rise in productivity of social labour is the most intricate calculation in this respect. It is done on the basis of the main factors which determine this growth. At the initial stage of elaboration of the plan three factors which determine the dynamics of labour productivity are singled out: structural changes, power consumption per worker and assets per worker.

The impact of structural changes on labour productivity growth is manifested in the increase of the share of sectors with a higher labour productivity than the average. This applies above all to a general increase in the number of persons employed in industry, in which labour productivity is higher than the average in the economy of the country.

Power consumption per worker is one of the main factors making for an increase in labour productivity. The dynamics of labour productiv-

ity for long periods almost coincide with the dynamics of power consumption per worker. This is taken into account when estimating the possible increase in labour productivity.

The indicator of assets per worker characterises the provision of living labour with the main means of production. This directly affects labour productivity because the quantity of objects of labour which can be processed in a unit of time depends on assets per worker.

The indicator of assets per worker can serve as a link between calculations of the use of living labour and the use of materialised labour; it makes it possible to establish a connection in determining labour productivity and the volume of the fixed productive assets.

These calculations establish the indicator of growth of the social product and national income for the plan period as the index of the number of persons employed in material production multiplied by the indicator of the productivity of their labour.

GROWTH OF ACCUMULATIONS AND ASSETS PER WORKER

The second trend of plan calculations at the stage of constructing a macro-model for development of the national economy is the substantiation of the growth rate of production by means of the possible dynamics of fixed productive assets, capital investment, accumulation and their effective use.

Economic substantiation of the rates of ex-

tended reproduction cannot be confined merely to an analysis of the dynamics of labour productivity and labour resources. Labour productivity itself is determined by the impact of various factors of production, among which a special part is played by the fixed productive assets and capital investment, which are the material basis for expanding social production.

The growth rates of the social product and national income are directly connected with a change in the volume of fixed productive assets and capital investment. This connection is expressed in the output/asset and output/investment ratios or in the inverse asset/output or investment/output ratios.

The application of the output/asset ratio does not, of course, mean that the national income is created by fixed assets. In reality its source is living labour, and the volume of the national income depends on the quantity of labour expended in material production and on labour productivity. Nevertheless, the indicator of output/asset ratio is applied in national economic planning because it expresses an important side of the reproduction process—the connection between the reproduction of assets and the social product effected through the fixed assets at the disposal of labour.

This trend of calculations begins with an analysis of the movement of fixed assets, capital investment, accumulations and the indicators of their use for the past period.

Preliminary calculations of the volume and dynamics of the social product and the national income serve as a basis for determining the gen-

eral accumulation of resources (at the first stage of calculation the share of accumulation in the national income and its structure in the preceding period may be taken). Ascertainment of the general accumulation resources makes it possible to calculate the dynamics of capital investment and fixed assets.

The reservation should be made here that rates of extended reproduction are directly connected with the fixed productive assets and productive accumulation. The movement of non-productive assets, and, correspondingly, of capital investment and accumulations directly influences not the growth of production but the movement of the consumption fund and the living standard of the population. This is why productive capital investment, and accumulation and productive fixed assets are used in substantiating the growth rates of the social product and national income.

Alongside calculation of the volume and dynamics of fixed assets, capital investment and accumulation, calculations are made of the indicators of efficiency in their use.

The main indicator of efficiency is the output/asset ratio (or the asset/output ratio) because the production of goods is directly connected with the use of fixed productive assets, whereas capital investment and accumulation are connected with the output only through fixed assets.

The dynamics of the output/asset ratio is connected with many factors which operate in different directions. Among the main factors are:

— technological progress based on the introduction of scientific and technological achievements in production; quantitative account of this factor at the given stage of plan elaboration is possible only on the basis of assessments by experts and an analysis of trends in the preceding period;

— shifts in the sectorial structure of production which lead to changes in the output/asset ratio, assuming that it remains unchanged in large sectors of material production;

— dynamics of the fund of time, in the course of which the equipment is utilized; this indicator reflects improvement in production organisation.

A quantitative assessment of these factors in the first stage of plan elaboration is inevitably based on a number of hypotheses which are subject to further clarification. But in their sum-total these hypotheses already at this stage allow a more or less realistic determination of the possible dynamics of the output/asset ratio.

Comparative analysis of the dynamics of labour productivity and assets per worker in the plan period can be used as a control calculation of independent significance. Faster growth of labour productivity as compared with a rise in assets per worker is indicative of an increase in the output/asset ratio, while the reverse speaks of a decline in the output/asset ratio. The magnitude of the gap reflects the degree of change in the output/asset ratio. To establish the fund of labour-time worked in material production, which influences the output/asset ratio two comparisons should be made: annual productivity

per worker should be compared with assets per worker, and the hourly labour productivity—with the volume of fixed productive assets per man-hour.

CONSUMPTION FUND AND ITS SHARE IN NATIONAL INCOME

The third trend in constructing an aggregated plan model of national economic development is to calculate the consumption fund as a prime part of the national income on the basis of per capita consumption rates and estimates for the development of the non-productive sphere. This calculation is based on the assignments for raising the living standard.

The volume of the consumption fund is determined, on the one hand, on the basis of the total resources of the national income and the part which should go for accumulation. On the other hand, it is determined on the basis of per capita consumption rates for the plan period and estimates for the development of the non-productive sphere.

The consumption budget of the population for preceding years serves as the basis for calculating per capita rates for the plan period. A plan (rational) consumption budget of the population is drawn up on the basis of an analysis of family budgets and the use of scientific and rational consumption norms of major food and non-food goods, norms for the provision of housing and the services of social, cultural and other institutions.

In determining the consumption fund the

most difficult problem is to substantiate changes in its structure. To cope with it, careful economic studies of population demand, its structure, and especially of elasticity of demand are required. These studies make it possible to improve the planning of the physical structure of the consumption fund and to take into account real trends in the consumer demand.

Calculation of the consumption fund and the necessary accumulation of consumer goods enable planning agencies to establish the volume of output in Department II and, on its basis, the relationship between Department I and Department II of social production.



Coordination of the three methods of calculation, mentioned above, results in the construction of an aggregated model of national economic development which characterises the movement of the main plan parameters and their interconnection. This coordination rests on the aims of the plan which outline the key problems that must be solved in the plan period. It is not any coordination that can serve the purpose, but one which ensures the accomplishment of the principal tasks of the plan.

Coordination of these three methods in a single model is achieved as a result of repeatedly made approximations. The entire sequence of calculations must not be regarded as movement in one direction: internal balancing of the model is achieved only as a result of many corrections of the entire system of calculations until the triple aim formulated earlier is attained, namely,

the main political and economic directives are properly reflected, the real conditions of economic development are taken into account and the balancing of all the plan indicators within the bounds of the aims set is achieved.

Ascertainment of the main indicators of national economic development—the social product and national income, labour resources and their allocation, labour productivity, fixed assets, capital investment, accumulations, their composition and indicators of efficiency of their use, the consumption fund and its composition—enables planners at the preliminary stage of plan formulation also to calculate the gross output of some major sectors of the economy and a number of indicators in physical terms. Thus the volume of capital investment and its structure determine the scale of construction and assembly work, the required equipment and building materials; the consumption fund and its structure predetermine the main part of the needed agricultural output and the output of industries producing consumer goods.

Substantiation of the basic parameters of the plan presupposes determination of a number of national economic proportions which show the direction and distinctive features of the plan. Among these proportions are:

- relationship between the social product and the national income, which characterises the consumption of materials in social production;

- division of the national income into the consumption fund and accumulation fund, which determines the two principal parts of the

plan—the advance in the living standard of the population and the maintenance of stable rates of economic growth.

PRINCIPLES OF FORMING THE FINAL SOCIAL PRODUCT

Knowing the basic parameters of national income for the period covered by the long-term plan, it is possible to substantiate the sectorial structure of the final product and above all its main elements—the consumption fund and accumulation fund.

The final product is the part of the gross social product which finally goes beyond the bounds of current production and is utilized for consumption, accumulation and also replacement of the means of production accumulated in preceding years and consumed in production. In other words, the value of the social final product is made up of value newly created in the given year by living labour and the value transferred from means of production accumulated in preceding years.

The consumption fund consists of the personal consumption fund of the people and material outlays in the non-productive sphere—culture, education, public health services, public utilities and housing, science and administration.

The accumulation fund is sub-divided into two main parts: accumulations in productive assets and accumulations in non-productive assets (dwellings, assets of educational, cultural, health and other establishments). Accumulations in

productive and non-productive assets and replacement of fixed assets determine the scale of capital construction in the plan year. The planning of the sectorial structure of capital investments as an element of the final product is chiefly concerned with the requirements of separate sectors for expansion of their fixed assets.

In forming the social final product the relationship between the consumption fund and the accumulation fund is of utmost importance. The social aspect of this problem is determined by economic and political tasks set for the plan period. This relationship largely depends on the efficiency of productive accumulation and the rational structure of the consumption fund.

After determining the proportions between consumption and accumulation, the volume of the consumption fund can be established. This makes it possible to undertake the ascertainment of the structure of the consumption fund by sectors and commodities. The most intricate methodological and calculation problems arise in determining the commodity structure of the personal consumption fund. Extensive research is now conducted in the Soviet Union to study the dependence of the structure of consumption on the level and composition of population incomes, on incomes and prices, total volume of consumption, territorial distribution of consumption, the sex and age composition of the population and other factors affecting the structure of the consumption fund. Scientifically-based consumption norms are widely utilised for determining the structure of consumption in

the plan period. The solution of all the problems of planning consumption is one of the central tasks of economic science, because planning is now entering a stage when the dynamics of national economic development is increasingly determined by the volume and composition of the consumer demand and the dynamics of social consumption.

Economic studies show that the level of population income greatly influences the structure of the personal consumption fund. As incomes rise there are definite progressive changes in the structure of the consumption fund, namely, the proportion of foodstuffs declines, while among the foodstuffs consumed, the share of processed agricultural products increases; the proportion of manufactured goods, especially durable goods, rises.

There are great possibilities for changing the commodity structure of the personal consumption fund and thereby improving the structure of social production. Let us take, for example, the ratio of articles produced from woven and knitted fabrics. The costs of production of knitted underwear is from 25 to 35 per cent lower than that of underwear made from ordinary fabrics, and from 45 to 50 per cent lower in case of knitted garments. The expansion of output of knitted goods, already effected in the Soviet Union, yields an annual saving of about 100 million roubles. There are still bigger possibilities for further improving the structure of clothing production by increasing the share of knitted garments, as well as for improving the

structure of the personal consumption fund in other commodity groups, especially durable goods.

SECTORIAL STRUCTURE OF THE GROSS SOCIAL PRODUCT

After the volume and sectorial structure of the final product are established, calculation of the volume and structure of the social product can be undertaken. This is made on the basis of the inter-sectorial balance of production and distribution of output in the economy, which is a synthesis of the plan balance of the national economy and material balances.

The main methodological principles of the inter-sectorial balance of production and distribution of the social product originated in the Soviet Union as early as in the first stage of economic construction. They were dictated by the new conditions which arose as a result of the victory of the October Revolution of 1917.

The balance of the Soviet national economy for the 1923/24 economic year contained all the fundamental elements of the inter-sectorial balance. However, the ideas of the inter-sectorial balance were not developed up till 1957-1958 when the Economic Research Institute of the Gosplan began to elaborate methodological questions of balance compilation and made the first experimental balance calculations based on usual statistical and planning data. In 1960-1961 the Central Statistical Board compiled the first inter-sectorial balance of the Soviet Union for

1959, which contributed to the development of corresponding plan calculations. The economic-mathematical laboratory of the USSR Academy of Sciences was set up by Academician V. S. Nemchinov at that time, and it began to elaborate inter-sectorial balances by regions.

The compiling of an inter-sectorial balance enabled planners to approach the determination of national economic proportions from new positions. An economic-mathematical model of an inter-sectorial balance makes it possible to solve the problem of proportionality, taking as a point of departure the final requirements of society. This imparts a purposeful nature to all work of calculating national economic proportions.

The formulation of the plan from the angle of society's requirements presupposes organic coordination of production and consumption, where production is regarded as the basis of the extended socialist reproduction, and consumption as its ultimate aim. Lenin wrote that replacement of capitalist production by socialist is done "to ensure the complete well-being and all-round development of all its members." That is why a plan for the development of the socialist economy is elaborated with an eye to the achievement of the biggest possible social final product of the most progressive structure.

The mathematical dependence between the volume and sectorial structure of the final product, on the one hand, and the gross social product, on the other, is expressed in a system of coefficients of the full outlays of materials, living labour and productive assets per unit of the final product. These coefficients are obtain-

ed by aggregating the direct outlays (coefficients of direct outlays) of materials, labour and assets made in each sector of production.

The degree of differentiation of the coefficients depends on the classification of sectors or products, accepted in drawing up the inter-sectorial balance. The stability of this or that coefficient depends on the dynamics of the technological progress since the magnitude and structure of the outlays is determined by the level of technology and the degree of aggregating the sectors and products.

The mechanism of relationships, contained in the economic-mathematical model of the inter-sectorial balance, makes it possible to obtain quickly indicators characterising the efficiency of one or another variant of the structure of production.¹

At first several variants of the volume and structure of the final product are elaborated and also a number of variants for developing the technology of material production, characterised by various manufacturing processes, and, therefore, requiring different materials, labour and fixed assets. The comparison of different variants of the inter-sectorial balance helps to determine total outlays of living and materialised labour and the capital required for each variant of the volume and structure of material production, and to draw conclusions as regards the economic efficiency of each variant. Multi-

¹ A detailed exposition of the subject is given in Academician Nemchinov's *Economic-Mathematical Methods and Models* (in Russian), Moscow, 1962.

variant planning makes it possible to select a variant of social production best suited to the socio-economic tasks of the given plan period, which ensures optimum proportions in the economy, the most efficient use of the country's productive resources and maximum satisfaction of the needs of society with the lowest outlays. All this provides for bringing out the most progressive structure of social production.

These methods of determining the proportionality of social production permit an all-round assessment of the economic efficiency of structural changes in industry and in material production as a whole.

OPTIMAL PLANNING IN THE SOCIALIST ECONOMY

Optimal planning is a further development of the balance method, imparting a new quality to it. The balance method helps to achieve equilibrium and proportionality in developing the economy, but it does not ensure a national economic optimum—that is, highest results at the lowest cost. The balance method enables planning agencies to draw up several variants of the national economic plan and choose the one that most corresponds to the tasks of the plan period. This, however, does not mean that the best variant has been found which ensures the highest results with the material and labour resources at the disposal of society. It is only with the help of optimum planning methods that this task can be successfully accomplished.

The essence of optimal planning is to find ways for the fullest satisfaction of society's needs with the available resources or to determine the smallest outlays of living and materialised labour for satisfying the given volume of social needs. While incorporating everything contained in the balance method, optimal planning differs from it in two important features: it has a purposeful function which characterises the main aim of socialist production for the plan period and it offers various economic and technological variants for attaining this aim.

Optimal planning ensures the realisation of the immutable law of economic development—to achieve highest result at the lowest cost. Such a planning to the utmost corresponds to the nature and objective potentialities of the socialist economy. Satisfaction of social requirements as the aim of production, and efficient use of the national wealth in all its forms as a means for achieving this aim—in the combination of these two aspects the nature of socialism and the essence of optimal planning are manifested.

Optimal planning can be effected at various levels, national, sectorial, local (enterprise or economic region), but the essence of an optimal plan in all cases is similar: achievement of a maximum final output of the economy (sector, area, enterprise), of a definite structure and quality through the best use of the natural resources, productive assets, labour, raw and other materials, fuel, electric power—of all the components of production.

On a nation-wide scale the optimal plan aims

at ensuring the fullest satisfaction of the total social requirements with all resources at the disposal of society; on a sectorial scale—at the production of a maximum of goods conforming to social needs; the optimal plan of an individual enterprise has for its goal the production of a maximum of goods in an assortment and of a quality that conform to the demand.

Optimal planning based on public ownership makes it possible to coordinate the national, sectorial and local optimums and to ensure the unity of individual and national interests. This is achieved by subordinating the activity of each enterprise or economic region to the national economic interests and by applying a system of prices which ensures profitability of production of goods corresponding to social needs.

The theoretical and practical achievements of Soviet economic science, mathematics, cybernetics and the development of electronic computation techniques make up the foundation of optimal planning. Mathematical methods and electronic computers enable planners not only greatly to speed up economic calculations for planning purposes, but also—and this is the main thing—to model economic processes and study the quantitative relationships of the sum-total of indicators of economic growth.

An economic-mathematical model of the national economy is a reflection of the real relationships in the economy, which enables planners to take into account a wide range of indicators and their interdependence. The introduction of an economic-mathematical model in an electronic machine permits to imitate real

economic processes and to conduct scientific laboratory experiments. An economic-mathematical model opens up entirely new possibilities, raises the timeliness and precision of calculations and makes it possible to select the most efficient economic solutions.

A system of economic-mathematical models reflecting various aspects of economic development represents the methodological basis and instrument of optimal planning. The common structural elements of each model are: a purposeful function which reflects the economic criterion for the development of production in the planned period; the given structure and quality of the final product, which conforms in the highest degree to social requirements; the material and labour resources at the disposal of society, sector, region or enterprise and their characteristics; the variants of different production (technological) methods, which make it possible to produce the necessary goods with the available resources. The task of an optimal planning model is to find a combination of production (technological) methods ensuring maximum satisfaction of social requirements, with the most efficient use of all the productive resources.

The system of optimal plan models includes: synthetic national economic models of the interaction between rates and factors of extended reproduction; statistical and dynamic models of inter-sectorial relations which characterise the sectorial structure of production and the movement of goods between various sectors of material production; models reflecting the

dependence of the level and structure of the consumer demand on the volume and distribution of incomes by groups of the population, on the level and relationship of prices of various goods; models of foreign trade, inter-area exchange, location of production and other models.

The system of economic-mathematical models of optimal planning also includes models for solving local production problems: finding the most advantageous direction of goods flows, the rational use of machine tools, fuel and raw materials.

Each level, each stage of optimal planning, depending on the degree of aggregation, has to deal with its own estimates of social needs and its indicators of resources. At the level of synthetic plan calculations, the achievement of the maximum use of the national income (or maximum consumption fund for the plan period) with the available productive assets and labour resources can serve as the criterion. At the level of a multi-sectorial plan model the social need is characterised by the structure of the final product which includes capital investment and consumption (a static model) or only consumption (a dynamic model). The resources here are productive assets, manpower, and the intermediary product by sectors. In elaborating an optimal inter-sectorial balance, besides these two components several methods of producing the given element of the final product should be used (in the generation of electric power—thermal and hydroelectric stations; in the manufacture of fabrics—chemical and agricultural raw material by kinds, etc). In drawing up an

optimal plan of an enterprise the volume and assortment of the final product can be characterised by indicators in physical terms; the resources—by the number and capacity of the machine tools, tons of raw material, the number of workers of different trades; and the variants of producing the final product—by different manufacturing methods.

Elaboration of optimal planning methods sharply enhances the importance of plan rates of consumption of raw and other materials, fuel, electric power, productive assets, capital investment and labour per unit of output. The rates for the plan periods reflect the progress in science and technology and the improvements in organisation and manufacturing methods. Plan rates take into account the most progressive trends; the feasibility and precision of plans depend on the level of technical and economic substantiation of these rates. In optimal planning it is very important that the system of rates allow a choice. In determining plan rates various technical solutions and a variety of outlays should be envisaged, for optimal planning consists in choosing the most efficient variant of technological processes, which ensures the smallest aggregate labour and material outlays in achieving the planned results.

To give an idea of the importance of optimal planning and its methods let us cite a concrete example. Annually hundreds of millions of tons of coal are mined and transported in the Soviet Union. Coal is mined in some dozens of regions (Donets, Kuznetsk, Karaganda, Moscow, Vorkuta, Ekibastuz and others) but it is consumed in

all parts of the country. There are many variants of transporting coal from the place of extraction to consuming regions. The transportation expenditures on the same quantity of coal naturally differ. The task is to make the necessary carriage with the least outlays. Ordinary means of planning the coal carriage permit of establishing a more or less rational layout of the traffic flows.

But it is impossible to find the best variant by such methods. Optimal planning enlists electronic computers for coping with this task. This kind of work has been done more than once by Soviet economists and mathematicians. It has been estimated, for example, that by organising coal carriage in conformity with an optimal plan the state could have cut transportation costs by some 100 million roubles in 1960! And this is only one specific case.¹

Methods of optimal planning are increasingly applied in the Soviet Union. At first these methods were used for solving economic problems of individual enterprises, later optimal planning began to be used on a regional scale and now the task has been set of compiling an optimal economic plan on a country-wide scale. Notable achievements have been registered both in the applied and theoretical directions of research in this sphere.

The fundamental principles of optimal planning were elaborated by the Soviet economist L. V. Kantorovich as early as in the pre-war

¹ I. Y. Birman. *Transport Problem of Linear Programming* (in Russian), Moscow, 1962

years. The theoretical works of V. S. Nemchinov, L. V. Kantorovich and V. V. Novozhilov on problems of optimal planning are a great achievement of Soviet science. For their work these scientists were awarded in 1965 the Lenin Prize, the highest national award in the Soviet Union.

The use of optimal planning methods in elaborating national economic plans means a new, higher stage of planning which makes it possible to satisfy more fully social needs with the same resources.

OPTIMUM PROBLEMS IN CAPITALIST ECONOMY

Under capitalism the use of methods of optimal planning encounters a number of insoluble contradictions. Here the contradiction between the instruments of capitalist programming and their real possibilities are revealed in full measure. In analysing this problem let us turn to an interesting book by an American economist U. Baumol, *Economic Theory and Operation Research*.¹

In defining the optimum the problem of an economic criterion which is maximised (or minimised) arises first of all. Under socialism, maximum satisfaction of social requirements serves as such a criterion. Public ownership creates the objective possibility for full conformity between the interests of individual enterprises and those of the national economy. Baumol is aware of the fact that private ownership makes

¹ U. Baumol. *Economic Theory and Operation Research*, N. Y., 1961.

it impossible to set the task of ensuring the well-being of all members of society. That is why he subscribes to the aphorism of a bourgeois economist: "The much-discussed objective of the greatest good for the greatest number of people contains one 'greatest' too many."¹ Indeed, in the conditions of capitalist competition, when the principle "everyone for himself and the devil take the hindmost" is in force, the social good cannot be directly or indirectly the aim of developing production. Renunciation by bourgeois theoreticians of the principle "the greatest good for the greatest number" is sober recognition of the very essence of capitalism, and it reflects the inability of the capitalist system to secure the welfare of the working people. If we are to continue the above aphorism, two "greatest" are indeed too much for capitalism, but "the greatest good for the smallest number" or the "smallest good for the greatest number" fully conform to the spirit and content of capitalism.

On the question of the choice of national economic criterion for the optimum Baumol holds a negative stand peculiar to Western economists. "Any attempt," he writes, "to construct a rigorous and universally applicable criterion for distinguishing what policy change is an economic improvement must founder on the problem of inter-personal comparisons."² Renunciation of a national economic optimum leads to the conclusion that "management's aims must be taken to be whatever they are, and the job

¹ *Ibid.*, p. 193.

² *Ibid.*, p. 266.

of the analyst is to find the conclusions which follow from these objectives—that is, to describe what businessmen do to achieve these goals, and perhaps to prescribe methods for pursuing them more efficiently.”¹ Thus, under capitalism there can be no other criterion of optimality except the greatest profit of each individual capitalist.

The choice of the greatest profit of an individual capitalist as the optimum criterion, which is quite natural for capitalism, leads to admission of contradictions between optimality from the standpoint of the individual capitalist and that of society as a whole. Baumol writes that the capitalist “benefits only by benefiting the community and, conversely, by promoting his own interests he necessarily promotes those of the rest of the community as well. Unfortunately, there are many cases when this crucial premise breaks down—when members of the economy do things which benefit others in such a way that they receive no payment in return, or where their actions are detrimental to others and involve no commensurate cost to themselves. In such cases of divergence between social and private returns, self-interest and social interest do not coincide.”² Baumol notes further: “When each person independently pursues his own interest he may end up less well off than he would under an optimal arrangement. Where social and private returns do not coincide, it is possible that all members of society

¹ *Ibid.*, p. 193.

² *Ibid.*, p. 258.

will lose out if each of them does his best to promote his own aims.”¹ Well, we can only subscribe to such conclusions. Baumol has very precisely and objectively formulated the contradiction under capitalism between the private and national economic optimum and the impossibility of achieving the latter.

In view of the recognition of such contradictions, the concepts of external saving and external losses have been introduced in bourgeois econometrics and programming. These concepts determine the difference between private capitalist effect and national economic effect: an external saving arises if benefits from extending the given enterprise accrue to other enterprises, while the enterprise itself receives no return whatsoever; when, however, expansion of production at the given enterprise (firm, company) results in losses at other enterprises without detriment to the producer, external losses occur. Consequently, under capitalism the expansion of production by individual capitalists to the detriment of society as a whole and the refusal to expand production if it brings no additional profit to the entrepreneur, although it benefits society, are quite natural.

Under socialism, when the saving at each enterprise is at the same time a national economic saving and all losses are national economic losses, there is no difference between external and internal saving (or losses); to be more exact, any saving and any loss are internal. Thus there exist objective conditions for realising all eco-

¹ *Ibid.*, p. 259.

conomic decisions beneficial from the national economic standpoint. This fundamental difference between the socialist and the capitalist optimum leads to far-reaching economic consequences.

To begin with, the sphere of efficient economic decisions, particularly the sphere of efficient investment, is wider under socialism than under capitalism. This follows from the fact that private ownership prevents taking into account national economic efficiency, as a result of which individual capitalists refuse to make an investment not beneficial to them, although expedient for society. L. V. Kantorovich¹ has rightly stressed that this leads not only to fundamental qualitative differences but also to different quantitative results, because one and the same technico-economic variant may prove profitable in socialist conditions but unprofitable under capitalism.

The attainment of a national economic optimum on the basis of public ownership favours the full use of all kinds of resources. But when private capitalist profit is the criterion of optimality, the achievement of the biggest profit does not necessarily corresponds to the full use of the factors of production. From the national economic viewpoint Baumol is right when he asserts that there is always reason to extend output until some limit of productive capacity is reached. But in combination with maximising profit, the task of fully utilizing capacity is not

¹ *Economic Calculation of the Best Use of Resources* (in Russian), Moscow, 1959.

feasible. If expansion of production leads to better use of the factors of production, to a national economic saving, but reduces profitability of the additional output, such an expansion will not be carried out under capitalism.

The possibility of achieving the optimum in capitalist conditions runs up against one more internal contradiction which is admitted by Baumol: "The marginal optimality rules are either silent or prejudiced on the question of income distribution."¹ Indeed, where the criterion of optimality is private capitalist profit and not social requirements, not the "greatest good for the greatest number," the problem of a just distribution of income, within the bounds of achieving an optimum, cannot be solved. Moreover, in the marginal utility theory the income of each participant in production is considered not as a result of the quality and quantity of labour expended by him, but as a subjective appraisal of his labour by the agents of capitalist production. Thus, the objective criterion for comparing the level of incomes disappears and consequently, the same happens to the criterion for socially just distribution.

Western economists see a means for resolving the contradictions between the private and the national economic optimum, between the profit of the capitalist and the social requirements in the establishment of prices on goods and all the limited resources of production in conformity with an optimal solution on a national economic scale. In their opinion, it is ne-

¹ *Ibid.*, p. 247.

cessary first of all to find the optimal prices in such conditions when the volume of production at individual enterprises reaches a level where there is neither an external saving nor external losses, which constitutes a state of equilibrium. Then, the obtained prices will be introduced on all products and factors of production and, as a result, the capitalists will be forced in their own interests to take decisions which are optimal from the viewpoint of society.¹ Indeed, under socialism, when all the elements of social production, including prices, are planned, there is a possibility of establishing planned prices in conformity with the optimal national economic plan. Prices of the optimal plan provide for harmonious conformity between the interests of individual enterprises and those of the national economy, and make it possible to combine centralised planning with the economic independence of enterprises.

The capitalist state, in contrast to the socialist one, is unable to set prices in a planned way as they are formed spontaneously under the impact of market competition. That is why all the recommendations, expressed by Baumol and other economists concerning the use of optimal prices, are of no practical value in capitalist conditions, and prices cannot serve as a means for eliminating the contradiction between private and national economic interests. These contradictions are inevitable because they are inherent in the capitalist mode of production.

¹ *Ibid.*, p. 285.

CHAPTER VI

The Plan and Developing Countries

In the 20 years since the last war scores of states have taken the road of independent political and economic development.

Most of the newly-free countries have undertaken in one or another form to draw up the economic development plans. Planning in these countries, due to specific historical and economic conditions, has a number of features which distinguish it from both socialist planning and capitalist programming.

For the socialist countries planning is a natural form of guiding the economy by society where public ownership prevails. Capitalist programming arises in conditions of private ownership as an alternative to the operation of market forces when the latter are already unable to

ensure the development of the economy. Planning in developing countries is the only method of economic management, which enables them to escape in the shortest span of time from poverty, backwardness and economic and political dependence.

Planning in developing countries approaches socialist planning in that it is largely based on state ownership and in a number of countries bears a very pronounced socialist trend. But under a low level of social and economic development in these countries planning, resting on state ownership, has also to deal with the capitalist sector and to a great extent with pre-capitalist (feudal, patriarchal and even primitive communal) relations. The mixed nature of the economy in developing countries makes their planning akin in some aspects to social planning and in other aspects to capitalist planning and at the same time differing from both. Such duality has diverse shades, what in a number of cases results in fundamental distinctions between the aims and methods of planning in individual developing countries. Notwithstanding all these shades and distinctions planning in developing countries has common features determined by the community of social and economic conditions and the community of aims, namely, steeply to increase per capita income, build up a national industry and attain genuine and full independence. This fact makes it possible to single out planning in developing countries into a special type.

Even a mere enumeration of plans drawn up in developing countries demonstrates the wide

range of planning and the attention it commands. Three five-year plans of India, the first national economic development plan of Indonesia, two four-year plans of Burma, two five-year plans of the United Arab Republic, economic development plans of Afghanistan, Pakistan, Ceylon, Ghana, Guinea, Mexico—this list could be continued because today there is practically no developing country that does not try to take the road of planned development.

Planning in the newly-free countries has arisen in conditions different to that of capitalist programming in the developed countries of Western Europe and America. While for France, Britain, the United States, Italy, Holland, Japan and other countries, programming is a means for overcoming cyclical fluctuations and achieving balanced growth, for the developing countries of Africa, Asia and Latin America planning has as its objective such a development of the economy which would ensure the country's economic independence.

Planning is called upon to indicate the ways for spanning in a brief historical period the gap between the world's developed states and backward areas, where, as a result of prolonged colonial misrule, poverty, starvation and ignorance prevail. Colonialism has artificially preserved the social economic and cultural backwardness which now has to be eradicated in the lifetime of one generation. Is this task feasible? The record of history shows that it is. A graphic example is provided by the development of the Central Asian Republics of the Soviet Union and the Mongolian People's Republic. But this

requires definite objective conditions—social, economic and political. Depending on these conditions, planning in the newly-free countries can be either an active force promoting swift economic progress or remain merely good wishes not corresponding to actual possibilities.

FACTORS DETERMINING THE SPECIFICITY OF PLANNING

The specificity of planning in the newly-free countries is connected with their social and economic conditions which are more or less typical for all of them. What are these conditions?

First, specific features of the social structure: combination of a nationalised sector with private capitalist and small commodity and, in many countries, also feudal and other precapitalist forms. Foreign capital also plays a big role in many of these countries. The existence of a mixed economy precludes any planning of the non-socialised sectors and calls for radical social reforms designed to secure the direct planning of the entire national economy. The domination of foreign monopolies, existence of landlords, especially in South-East Asia and Latin America, survivals of the primitive communal system, caste and tribal restrictions and prejudices—all this hampers the economic development of the newly-free countries, makes it difficult to introduce planning and at the same time lends special importance to the social trend of planning in these countries. To ignore these problems

means to refuse to face realities and help preserve the obsolete relations.

Second, the general low level of economic development and its agrarian trend: low level of per capita national income and of labour productivity, primitive, obsolete technology and the lack of skilled personnel. In 1960, per capita national income in the developed capitalist countries amounted on the average to 1,037 dollars annually and in the developing countries only to 83 dollars (including 201 dollars in Latin America, 89 dollars in Africa and 72 dollars in Asia). What is more, this tremendous gap, far from shrinking, has a tendency to widen. While in 1950, the difference in per capita income between these two groups of countries was 667 dollars, in 1960 it increased to 954 dollars.¹ It is clear that in these conditions economic growth rates are the main problem of the developing countries and that acceleration of growth rates is the core of planning.

Third, the concentration of industry on the production of raw materials as a factor making for the economic dependence of the less developed countries. Industry in these countries produces chiefly raw materials. For example, in the Middle East and Venezuela oil-extracting is the dominating industry; in Bolivia it is tin and in Chile copper industries. The developing countries account for 35.7 per cent of the entire output of the extractive industry in the capi-

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 11, 1964, p. 119.

talist world and only 11 per cent of the manufacturing industry. It is highly indicative that this gap was smaller in 1938—the share was 18.5 per cent and 9.8 per cent respectively.¹ Thus there is a growing tendency to convert the developing countries into raw material appendages to the imperialist states. Paradoxical as it may sound, the winning of political independence is now accompanied in many cases by greater economic dependence. That is why the attainment of the necessary proportionality between the extractive and manufacturing industries is one of the basic problems of planning in the developing countries.

Fourth, dependence of the developing countries on foreign trade. The possibilities of industrialisation, the supply of industry with raw materials and the population with food largely depend on the volume and composition of foreign trade.

Since the former colonial countries, especially small and medium, do not produce equipment in necessary quantities, the very possibility of industrialisation depends on imports. On the other hand, industrial output and marketable agricultural output of these countries is meant not so much for the home market as for the foreign market. Countries which produce oil as a rule have no refining industry; those which mine iron ore or non-ferrous metal ores have no metallurgical industry.

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 3, 1962, p. 38.

Dependence of the developing countries on foreign trade remains inevitable in present conditions.

Without expanding their foreign economic ties the newly-free countries are unable to eliminate their backwardness in a short period. At the same time the scale and composition of their foreign trade with the developed capitalist countries deepens their backwardness. The share of equipment in the imports of the developing countries is insignificant while the share of food is large; in their exports the output of the extractive industry and agriculture prevails (cotton, tea and jute articles make up more than 50 per cent of India's exports; rubber and tea, 80 per cent of Ceylon's exports; cotton, more than 75 per cent of the UAR's exports; cocoa beans, 67 per cent of Ghana's exports; oil provides 92 per cent of the all foreign exchange receipts of Venezuela).¹

Account should be taken of the fact that world prices of manufactured commodities are rising, while prices of raw materials and food are declining. As a result, the developing countries lost some 22-23 thousand million dollars from 1951 to 1955 (two-thirds of the total foreign credits and aid).² In the light of these facts the adverse effect of foreign trade on the developing countries stands out very clearly. Naturally,

¹ *Monthly Bulletin of Statistics*, U. N., March 1961; *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 12, 1962, p. 86.

² *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 2, 1963, p. 81.

one of the principal tasks of planning in these countries is to transform foreign trade from a channel for the outflow of national wealth into a source of accumulation of resources for industrialisation, into a form of mutually advantageous international exchange.

Fifth, the existence of considerable unemployment connected in the main with the agrarian overpopulation. The majority of the gainfully-employed population in the developing countries is engaged in agriculture and the handicrafts. While in the developed capitalist countries most of the gainfully-employed population works for hire (in Britain 81 per cent, in the United States 78 per cent and in France 67 per cent), in the less developed countries most of the population consists of small producers. So-called "independent economies" and "unpaid family workers" make up two-thirds of the gainfully-employed population in India, four-fifths in Pakistan and nine-tenths in Thailand.¹ The incessant ruin of peasants and handicraftsmen turns millions of small commodity producers into unemployed which cannot be absorbed by the slow-developing industry. This unemployment exists first in a latent form as the agrarian overpopulation, and then, as the peasants completely break with agriculture and handicraftsmen with their crafts, it swells the scale of unemployment in the cities. According to estimates of international organisations and economists.

¹ *Sankhya*, 1959, Vol. 19, Part I, p. 2; *Almanach Pertanian*, 1953, p. 219.

India has an agrarian surplus population from 50 million to 65 million; the United Arab Republic, five million and Pakistan, from 25 to 30 per cent of the rural population.¹ Such a correlation of the labour resources lays its imprint on all major economic problems and planning. For example, the industrialisation process, resulting in the extensive replacement of manual labour by mechanised labour, clashes with the need to provide maximum employment. That is why planning in the newly-free countries must take into account both the striving for technological progress and the need to abolish unemployment in all its forms.

THE STATE SECTOR AND PLANNING

The possibilities of planning in developing countries depend on the role of the state sector, its share in the economy and also on the trend of its development i. e. in whose interests it is effected. The objective prerequisites for planning are provided by the existence of public, state property. The bigger the role of the socialised sector, the stronger the basis for planning guidance of the country's economy. "The planning of the national economy can only be really ef-

¹ S. Akhtar. *Economy of Pakistan*, Lahore, 1956, Vol. 1, p. 35; P. Wattal. *Population Problem in India*, New Delhi, 1958, p. 157, *International Labour Conference*, 44th Session, 1960.

fective," it is pointed out in the Programme of the Convention People's Party of Ghana, "when the major means of production, distribution and exchange have been brought under the control and ownership of the state."¹

The existence of a state sector enables developing countries to take economic decisions corresponding to the national interests and national planning. At the same time, in developing countries the state sector is a requisite for strengthening their national independence, because only it ensures the stability of the internal material and financial resources and makes it possible to lessen dependence on foreign trade and loans and thereby attain genuine economic independence. The state sector in developing countries is exerting decisive influence on accelerating industrialisation. State ownership enables a newly-free country to overcome the spontaneity of the capitalist economy.

The need to build up a state sector which plays a decisive part in the economy has been realised in many developing countries. The more consistently this idea is applied, the greater successes in planning. And the ways for building up a state sector may differ, depending on the country's social, political and economic conditions.

Nationalisation and state investment are two main ways for creating the state sector. The relationship between these two ways varies in different countries. Some newly-free countries re-

¹ *Programme of the Convention People's Party for Work and Happiness*, p. 15.

sort mainly to state investment avoiding nationalisation; other countries utilize both ways.

In Latin America nationalisation was started even before the Second World War, earlier than in other developing countries. It began in Uruguay where in 1912 the country's largest electric station serving Montevideo was nationalised. At present state enterprises in Uruguay (oil refining, electric power, cement and chemical industries, meat packing and storing) produce 15 per cent of the total industrial output. In Mexico nationalisation started with the oil industry (1938); in 1960, all the electric stations were nationalised. In 1952, Bolivia nationalised the tin mines which are the country's main national wealth. The State Mining Corporation of Bolivia (COMIBOL) contributes 60 per cent of all tin exports. Uranium ore deposits have been nationalised in Argentina and Brazil.

In the United Arab Republic the state sector has been created both as a result of nationalisation and state investment. Since 1961, all banks and insurance companies and also large enterprises have been nationalised. The state contributed 57 per cent of the total investment from 1960 to 1965 as compared with 12 per cent from 1945 to 1952.¹

In Indonesia, the state sector has grown chiefly through nationalisation. Dutch investment which amounted approximately to 70 per cent of the total investment in the country, has become the property of the state.

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 4, 1962, p. 47.

India and a number of other countries in Asia, Africa and Latin America have built up the state sector mainly by making state investments. While in India's first five-year plan (1951-1956) the state sector accounted for 46.6 per cent of the total investment, in the second plan its share rose to 54.1 per cent and in the third plan, to 60.6 per cent. Correspondingly, the number of state companies increased from 61 to 125 between 1956 and 1960 and their capital, from 66 million rupees to 468.4 million rupees.¹ In Indonesia, the state makes about two-thirds of the total investment; in Cambodia 70 per cent, in Burma 50 per cent, in Brazil 40 per cent, in Mexico 47 per cent, and in Latin America on average about 25 per cent.²

In the developing countries there are two parallel processes, reciprocally reinforcing each other: expansion of the state sector consolidates the basis of national planning, while planning of growth rates and changes in the economic structures are effected mainly through the socialised sector, through state investment.

THE PLAN AND PROBLEMS OF INDUSTRIALISATION

The main thing in formulating economic development plans is to determine the direction of

¹ *Ibid.*, pp. 96-97.

² *Ibid.*, p. 88.

this development. The fundamental problem in developing countries is industrialisation which determines the entire content and specific characteristics of their plans. *This is a hub of the entire range of planning problems.*

What processes linked with industrialisation should be reflected in the plans?

Industrialisation is regarded above all as a way for accelerating economic growth rates, as the basis for a country's economic independence and a means for eliminating the abyss between the poverty of the former colonial and dependent countries and the wealth of the few imperialist powers. The creation of requisites for accelerating economic growth rates directly depends on the profundity of the social changes. Planning in the developing countries and the industrialisation are inseparable from such social problems as the abolition of feudal landownership and dependence on foreign capital, restriction of the internal forces of capitalism, shifting the tax burden from the working people onto the propertied classes and change in the correlation between the state and the private sectors.

Strengthening of the state sector in a country's economy is a requisite for industrialisation. The role of the state sector in the industrial development of former colonies has been the subject of heated theoretical debates which, in their turn, reflect the struggle of different states and political groups on the world scene.

An expediency of and need for state interference in the economy with the aim to accelerate economic progress is widely admitted in all the

developing countries. It was clearly pointed out at a seminar of Asian countries (Delhi, December, 1959) that without state interference industrial progress of the less developed countries is impossible.¹

Indian economists, authors of a symposium on planning and plans, emphasise that less developed countries need an impulse to achieve higher production growth rates. The Indian Government promulgated laws (of April 6, 1948 and April 30, 1956) in which it formulated the basic principles of policy with regard to the state sector. The laws indicated the sectors of the economy that could be developed only within the bounds of the state sector (mining of ore and production of copper, lead, tin, etc).

However, there are bourgeois economists who, reflecting the interests of other capitalist groups, speak against the participation of the state in industrial production. The authors of another symposium issued in India hold that state enterprises have no right to existence, inasmuch as they operate only under the protection of the state and cannot withstand open competition either of local or foreign private firms. Attacks on the state sector are often inspired by monopoly circles, particularly of the United States which, supporting individual private enterprises of the national bourgeoisie, seek to preserve their grip on the economy of developing countries.

Changes in the social structure create objec-

¹ Seminar on Public Industrial Enterprises, New Delhi, December 1959, *Seminar Paper*, No. 23, p. 4.

tive conditions for shifts in the physical, sectorial structure of the economy. From this angle industrialisation implies an increase in the share of accumulation in the national income, priority growth of the industries producing capital goods and faster development of industry as compared with the rest of the economy. The combination of these three elements makes up the content of industrialisation plans.

To accelerate economic growth national plans must provide for an increase in the part of the national income allocated for productive investment. A decline in the consumption of the bourgeoisie and the non-productive expenditure, and a rise in labour productivity are the main ways for changing the proportions in the use of the national income in favour of accumulation.

Without creating adequate internal accumulation resources developing countries are compelled to resort to foreign sources; and in some cases economic plans become fully dependent on foreign aid.

For example, from 1958 to 1960 the share of foreign loans in financing the economic development of Tanganyika amounted to 75 per cent and in the development plans for 1961-1963 their share exceeded 83 per cent. Almost 70 per cent of the investment in the economic development plan of Uganda for 1961-1966 is to come from foreign sources.¹ India's third five-year plan is covered by internal resources only by 70 per cent, and the rest is covered by foreign loans

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 2, 1963, p. 60.

and aid.¹ Instead of expanding the home market as well as internal resources by abolishing feudal landownership, instead of socialising the private sector, Indian plans are largely oriented on foreign sources. And what the aid and loans of the imperialist powers mean can be judged by the following data.

From 1950 to 1961, developing countries had a total inflow of 47,400 million dollars in loans, investment and aid. During the same period they had an outflow of 26,500 million dollars in transfers of profits and interest abroad. Moreover, these countries lost 13,100 million dollars as a result of the widening gap between the prices they were paid for their raw materials and the prices they had to pay for manufactured goods. The foreign debt of the developing countries increased from 10,000 million dollars (1955) to 27,000 million dollars (1962).² Naturally, such a role of foreign sources in the plans of the developing countries does not create a sound basis for industrialisation and the achievement of economic independence.

It is not enough to ensure financial sources of accumulation. It is necessary to organise the production of machinery, equipment and building materials—that is, of everything that comprises the physical content of accumulation. The difficulties in the economy of the developing countries in this respect can be judged by the example of Africa. The total value of Africa's industrial output (without the South-African Re-

¹ *Ibid.*, No. 10, 1960, p. 125.

² *Ibid.*, No. 4, 1964, pp. 115-116.

public) amounts to 3,000 million dollars (less than Sweden's). Industry accounts only for 14 per cent of the national income of the African countries, with one-third coming from the extractive sector (as compared with one-tenth in the developed countries). In the manufacturing industry, 50 per cent of the output is produced by small handicraft establishments. In tropical Africa only 5 per cent of the needs in goods of the metal-working industry are satisfied by national production.¹ These data make it clear what tremendous structural changes are needed for the industrialisation process.

Most of the developing countries have so far not attained a share of accumulation that would enable them substantially to step up economic growth rates and they lag behind the developed capitalist countries in this respect. While in countries like West Germany, France and Italy, which have relatively high growth rates, investment claims about one-fifth of the national product, in South-East Asian and African countries it seldom exceeds one-tenth, and is growing very slowly. The share of investment in the national income amounted approximately to 5 per cent in Africa and Asia prior to the Second World War, and now it has risen in Asia only to 9 per cent, in Africa to 8 per cent and in Latin America to 11 per cent.² Under these conditions the annual growth rates in the developing countries range from three to five per cent and are not

¹ *Ibid.*, No. 1, 1964, pp. 50-51.

² *Monthly Bulletin of Statistics*, U. N., July 1960, pp. 158-159; J. Tinbergen. *Central Planning*, 1964, p. 60.

much higher than the natural population increase. For example, in Pakistan the population grew 2 per cent on the average between 1951 and 1960 and the national income, 3.1 per cent; in Ceylon 2.4 and 3.6 per cent respectively. In 10 years (1950-1959) the national income of six South-East Asian countries (Burma, Ceylon, India, Pakistan, Philippines, Thailand) rose 38.2 per cent (3.7 per cent annually), while the population increased by 100 million. In 10 years average per capita income increased 19.5 per cent (from 56.1 to 64.6 dollars annually).¹ In Latin America the per capita national product has remained almost stationary in the last 10 years.²

Thus, acceleration of growth rates, by increasing the share of accumulation and altering the structure of production, remains the fundamental problem of planning in the developing countries, which so far has not been practically solved in most of them. The U.N. General Assembly has adopted a resolution proclaiming the 1960s a Development Decade, in course of which the main purpose of each developing country is to accelerate economic growth rates. It is expected that the maximum growth rate of the national income by the end of the Development Decade should be five per cent annually—that is, higher on the average than the existing rates. But even

¹ *Economic Survey of Asia and the Far East*, 1961, U. N., Bangkok, 1962, p. 10; *Population of the World* (in Russian), Moscow, 1965, pp. 29, 31.

² A. Yefimov, A. Anchishkin. *Cuba Plans Her National Economy* (in Russian), Moscow, 1963, p. 20.

if these rates are achieved, in 1970 the developing countries will produce a per capita national income of 120 dollars (83 dollars in 1960), while the imperialist countries will have 1,400 dollars (1,037 dollars in 1960).¹ The gulf is thus widening, and not shrinking.

Planning of the national economy of the developing countries in the period of industrialisation runs up against the need simultaneously to develop production and raise the living standards, to give priority to industry and radically reconstruct agriculture, to raise labour productivity and employ manpower, including unskilled, to the utmost in social production. Planning has to find the most efficient ways for solving problems that are often contradictory, to prevent extremes and one-sided decisions. In accelerating economic growth rates plans must provide for a rise in the living standard, without which the development of the economy cannot be stable. At the same time industrialisation and a simultaneous advance in the living standard are impossible without the expansion of agriculture which supplies raw materials to industry and food to the cities and creates a market for the expanding national industry. Moreover, changes in agriculture by themselves are more complicated than industrialisation problems, because they are connected with a change in the way of life and social relations of the main part of the population, with the elimination of the century-old backwardness. "Difficult as the task of in-

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 11, 1964, pp. 119, 120.

dustrialisation would be," S. Chandrasekhar, an Indian scientist, rightly points out, "that of development of agriculture would probably be still more so since it would involve a thorough overhauling and reorganisation of the entire economic and social structure of the country."¹

No less intricate is the problem of the full employment of the labour resources. Here is one of the principal contradictions of the economy in developing countries, we have mentioned earlier: the desire to raise labour productivity on the basis of modern technology and large assets per worker encounters the surplus of workers which must be provided full employment with available investment resources. The higher the assets per worker, the higher the productivity of labour, and inevitably fewer workers can be additionally drawn into material production. Yet in the interest of developing the national economy, technological progress and labour productivity growth must not be restrained, but at the same time the labour resources must be fully utilized.

That is why, for example, investment in the developing countries which leads to a reduction in the number of employed persons cannot be considered economically justified.

For example, modernisation in a number of Indian industries led to an absolute decrease in the number of jobs: in the cement industry output increased 54 per cent from 1951 to 1956, but the number of workers dropped by 15 per cent;

¹ S. Chandrasekhar. *India's Population*, New York, 1946, p. 102.

in the jute industry production grew 25 per cent but the number of workers declined 10 per cent.¹

We are unable to examine in detail all the major problems and merely want to stress that the internal contradictoriness inherent in the problems of achieving economic independence, industrialisation and faster growth rates in the developing countries and the impossibility of their uniform solution make planning particularly important as a method of finding the most efficient ways for economic development.

FOREIGN ECONOMIC TIES AND PLANNING

In developing countries the industrialisation possibilities largely depend on changes in the structure of foreign trade and the nature of foreign economic relations. That is why one of the most important and primary steps in planning is to determine the volume and structure of export and import conforming to the tasks of industrialisation.

Developing countries are trying to achieve economic independence by converting foreign trade from a source for enrichment of the capitalists into an instrument for industrialisation. For all developing countries foreign trade remains the principal source of acquiring capital

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 4, 1962, p. 104.

equipment. That is why planning of foreign trade is one of the decisive links in the entire system of planning.

Planning of foreign trade should provide for the utmost expansion of exports because this primarily determines the import potentialities. Here it is exceedingly important to choose the proper range of exports, that is, to give preference to definite commodities the production of which most conforms to the country's economic and natural conditions and also to the demand on the world market and the prospects of its expansion. The most stable demand is presented by the socialist market, which is not subject to recessions and price fluctuations.

Narrow specialisation in two or three commodities which make up the bulk of exports arose during the period of colonial dependence. The desire to eliminate the concentration of agriculture or industry on one crop or one mineral and to develop a diversified economy is a natural tendency justified by experience. But the creation of a diversified economy does not at all preclude specialisation; it is only necessary to lay a sound foundation for it.

Planning of the second aspect of foreign trade—imports—envisages an economically substantiated increase in imports and also change in their composition. Usually imports are divided into equipment, raw materials and consumer goods. For a successful industrialisation it is necessary to reduce the share of imports of raw materials, replacing them by local supplies and to build new enterprises working primarily on local raw materials; to decrease the share of

consumer goods imports by comprehensively developing agriculture, food and light industries and to cut the imports of some durable goods (especially, motor-cars). This can alter the structure of the imports in favour of equipment, which will enable the country to step up growth rates of production as the basis for improving the living standards.

The special efficacy of replacing consumer goods imports by national production is demonstrated by the following example. In 1960 only 40 per cent of Africa's total needs in textiles were satisfied by local production. The full satisfaction of these demands by African industry would require an investment of 1,000 million dollars, which is only one-eighth more than the value of all textile imports of Africa in 10 years. Moreover, this would provide jobs to 425,000 people.¹

Planning for efficiency of foreign trade on the whole consists in ensuring the largest state exports and the smallest outlays on imports. That is why the plan should find ways for developing foreign trade which would make it possible, on the one hand, to expand exports, and, on the other, to reduce imports to the necessary minimum and to achieve their most rational composition. Ultimately, a solution of this problem is connected with the structure of investment. To raise the efficiency of foreign trade it is necessary to give priority to investment in export industries and industries which ensure the

¹ *Mirovaya ekonomika i mezhdunarodniye otnosheniya*, No. 1, 1964, p. 52.

replacement of imported goods by locally produced goods.

The existence of the socialist community is a powerful factor exerting an impact on all aspects of planning in the developing countries. Cooperation with the socialist countries enables them to follow the shortest road to winning economic independence, because this cooperation exists in fields which make up the basis of industrialisation and comprehensive development of the economy. The ties of the newly-free countries with the socialist community do not lead to the deepening of the one-sided concentration of their economy on the production of raw materials; on the contrary, they promote the development of metallurgical, engineering, oil-extracting and refining, chemical and power industries.

Without dwelling on all diverse economic relations of the developing countries with the socialist states, let us cite some figures reflecting their relations with the Soviet Union.

Machinery and equipment account for more than half of the value of Soviet exports to the developing countries. In recent years they have been getting more than three-fourths of all Soviet machinery and equipment exported to the capitalist world. India, the UAR, Indonesia, Afghanistan, Algeria, Iraq, Ghana and Guinea are the main buyers of Soviet industrial plant.

The rapidly growing share of complete sets of equipment for industrial enterprises is a distinctive feature of exports of machinery and equipment to the developing countries. While in 1955 sets of equipment were

delivered only to Afghanistan and India, in 1962 they were exported to 15 developing countries.

**EXPORTS OF MACHINERY AND EQUIPMENT FROM THE
USSR TO SOME ASIAN, AFRICAN AND LATIN
AMERICAN COUNTRIES (MILLION ROUBLES)**

| | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 |
|-------------|------|------|------|------|------|------|------|------|-------|
| Argentina | 0.9 | 1.0 | 0.6 | 0.4 | 4.7 | 10.9 | 7.4 | 5.8 | 0.04 |
| Afghanistan | 2.6 | 4.7 | 7.7 | 10.1 | 14.4 | 18.9 | 21.1 | 20.3 | 4.9 |
| Ghana | — | — | — | — | — | 3.4 | 12.1 | 3.8 | 6.8 |
| Guinea | — | — | — | — | 0.03 | 1.2 | 20.1 | 8.7 | 8.3 |
| India | 0.3 | 6.3 | 42.6 | 91.7 | 33.9 | 22.7 | 48.5 | 69.9 | 107.9 |
| Indonesia | — | — | 4.9 | 13.1 | 3.0 | 8.9 | 1.1 | 42.0 | 37.2 |
| Iraq | — | — | — | — | 12.0 | 11.0 | 22.1 | 34.7 | 26.5 |
| Iran | 0.6 | 1.1 | 3.4 | 1.6 | 1.9 | 2.1 | 1.6 | 0.9 | 1.3 |
| UAR | — | 4.4 | 13.8 | 13.4 | 19.1 | 21.0 | 39.7 | 53.3 | 75.5 |
| Mali | — | — | — | — | — | — | 6.6 | 5.1 | 5.5 |

For many countries economic cooperation with the Soviet Union is of decisive significance in accomplishing their programmes of building a national industry. For example, the Soviet Union is helping Afghanistan to develop a metal-working, gas, chemical, food and other industries. More than 20 industrial enterprises and other installations have been built and commissioned with the technical and economic assistance of the USSR in the last ten years. Each project built in Afghanistan with Soviet Union's participation is becoming a school for the training of national personnel. Soviet engineers have already taught different trades to more than 20,000 Afghans.

The Soviet Union is assisting India in building up its heavy industry. The first section of the Bhilai Steel Works was completed with Soviet cooperation and the second one is under construction. When the capacity of the Works rises from 1 million to 2.5 million tons of steel annually, this huge plant will account for 25 per cent of the country's steel production.

Among other enterprises being constructed in India with Soviet cooperation mention should be made of large electric stations with a total capacity exceeding 2.6 million kw, which is more than 30 per cent of the capacity of all electric stations to be built in India under the third five-year plan; a heavy electrical equipment plant which will produce hydraulic and steam turbines, electric generators and diverse electrical machines. Altogether 40 industrial projects are being built in India with Soviet assistance.

Enterprises of the oil, engineering, electrical equipment, ship-building, metallurgical, pharmaceutical, textile and food industries are being built in the United Arab Republic with the technical and economic cooperation of the Soviet Union. A refinery with an annual output of million tons of crude oil, a machine tool factory with an annual output of 750 metal-cutting machine tools, a sintering factory with a daily capacity of 1,000 tons of iron ore, coke and by-products plant, cotton spinning mills, an aluminium factory and other enterprises have already been commissioned.

Soviet assistance in building the Aswan irrigation and power complex on the Nile, one of

the world largest hydroengineering installations. is generally known.

Altogether more than 170 industrial, agricultural and transport enterprises, and educational and medical institutions, developed with Soviet assistance, have already been put into operation in Asian and African countries.

In conformity with the concluded technical and economic cooperation agreements the Soviet Union is rendering Asian and African countries technical assistance in building 600 different projects.

These countries pay for most of the Soviet technical assistance on the basis of long-term easy credits. The Soviet Union has granted Afro-Asian states long-term credits for more than 3,500 million roubles. As a rule, these credits are repaid by deliveries of their goods, which simultaneously helps them to solve the important problem of expanding exports.

In many countries Soviet credits cover a considerable part of the capital investment envisaged in their economic development programmes. In India these credits account for about 12 per cent of the entire investment in industry and the state sector under the third five-year plan (1961-1966). Credits of the Soviet Union given to the Republic of Mali provide about 20 per cent of the entire investment under the five-year economic development plan (1961-1965). In Afghanistan Soviet credits comprised more than 30 per cent of the capital investment under the first five-year plan (1956-1961) and according to estimates they will cover

a half of the capital investment under the second five-year plan (1962-1967).

Mentioning an exceptionally great importance of cooperation with the Soviet Union in developing his country's economy, King Mohammed Zahir Shah of Afghanistan said: "The people and the Government of Afghanistan express gratitude to the Soviet Union for assistance during the first five-year plan in building a number of the country's industrial projects and also for aid in carrying out the second five-year plan."

Expanding economic relations with the socialist community, developing countries are placing their foreign trade at the service of industrialisation.

DISTINCTIONS IN METHODS OF PLAN FORMULATION

The specific conditions in which planning is conducted in the developing countries influence the methods of plan formulation.

This question requires fundamental studies which are lacking so far, although their urgency and practical significance are beyond doubt. We shall merely enumerate some of the distinctions, everyone of which can be the subject of a special analysis.

Before speaking of these distinctions let us note once again that in definite conditions the basic principles and methods of socialist planning are fully applicable in the developing countries. The sooner the remnants of feudalism are

abolished, the higher the level of socialised sectors, the more resolute the struggle for economic independence and social progress, the wider the opportunities for utilising the experience and achievements of socialist planning. The experience of the Soviet Union and other socialist countries is greatly influencing planning in almost all the developing countries. This important fact has been repeatedly mentioned both by leading statesmen and economists of these countries.

The specific character of planning methods in the developing countries is connected with the distinctive features of the *organisational structure of the economy*, which reflects the historical and economic conditions of development of each country.

It is natural that the distinctions in the organisational structure affect planning, the degree of its centralisation, the choice of the basic unit of planning and accounting, and so on.

Planning in the developing countries stands at different levels and solves problems of varying scope and complexity. It is natural that these countries have numerous specific features in planning owing to local conditions and national distinctions. It is one thing when a country has a modern industry and the state sector plays an important part in it (for example, India, the United Arab Republic); it is a different thing when pre-capitalist forms of the economy prevail (for example, in the majority of African countries). That is why at the initial stage of planning, especially in countries which in effect have no large-scale industry, the object of planning is

not the entire economy but *individual major projects*, integrated at a later stage. Here it is necessary to determine the comprehensive influence of each project on different sectors of the economy.

At an early stage of planning the plan cannot encompass all aspects of the economy—production, investment, living standard, transport, communications, trade (home and foreign, wholesale and retail), price formation and the outlays of production and circulation, labour and personnel training, finances and wages.

In developing countries evidently it is expedient to limit the detailed elaboration of the plan to an *investment programme and a plan for foreign trade and their financial substantiation* (national budget and balance of payments). It is clear that all sides of economic development depend on the solution of these principal questions.

Noting that the experience of planning in the developing countries has been little studied, we want to refer to the special reports of the Economic Commission for Asia and the Far East on methods of elaborating economic development programmes.¹

These reports are designed to sum up the available experience and indicate ways for its improvement. Of course, such an intricate task cannot be accomplished as a result of the Commission's work, the more so since the authors

¹ *Programming Techniques for Economic Development*, Bangkok, 1960; *Formulating Industrial Development Programmes*, Bangkok, 1961.

of the reports present planning problems chiefly from the positions of capitalist programming. Nevertheless, these reports favourably differ from other studies by their high professional level and systematic exposition.

There is no need to give a full review of the methods of economic substantiation of projections offered by the authors. We shall merely discuss some questions of methodics in drawing up programmes of industrial development. As a rule, the methodological schemes are of a global nature. But some concrete methods of planning are of interest. This applies particularly to methods of selecting individual drafts and evaluating the efficiency of capital investments in solving technico-economic problems (choice of the type of equipment and others). In this part the methodics rests to a certain extent on Soviet experience too. But, unfortunately, on the whole forecasting methods prevail in which extrapolation of data of the past period into the future is extensively employed.

In elaborating the methodics of economic development programmes the authors go from the general to the particular. In this connection three stages of calculations are singled out. At the first stage, a general economic analysis helps to calculate the principal indicators of a country's economic development, the size of investment, volume of consumption, savings and other summary characteristics. Problems of development of individual industries are examined at the second stage of calculation. The volume and structure of the "final demand" for the output of the main industries is determined. Methods

of assessing various factors of production necessary for the functioning of industry are examined and methods of evaluating the efficiency of capital investment are outlined. To evaluate the efficiency of capital investment the following indicator is used:

$$\text{Efficiency of capital} = \frac{\text{Value of output minus the outlays on the purchase of raw and other materials minus depreciation minus wages}}{\text{Value of capital investment}}$$

Such a calculation in effect reduces the problem of efficiency to finding the magnitude of profits obtained per unit of capital investment. To determine the scale of production of goods by industries the report suggests using the methods of inter-sectorial balance. Such calculations determine the general assignments and the magnitude of the utilized resources by sectors and also the allocation of capital investment.

At the third stage the methodics call for more detailed calculation to select the best project of capital investment in each sector and to dovetail reciprocally the chosen projects. In this part the methodics provide not only for a substantiation of the efficiency of developing the sector as a whole but also the efficiency of production of individual goods. The methodological recommendations contain suggestions for methods of selecting manufactured goods, the production of which are most advantageous in conditions of a given country. Among the propo-

sals which merit attention are the recommendations on how to calculate the efficiency of projects for expanding and reconstructing operating enterprises.

The authors put forward three main indicators as the principal criteria for economic efficiency of programmes for industrial development in newly-free countries: rapid growth of per capita income; high level of employment; equilibrium of the balance of payment.

Accomplishment of these tasks in the developing countries encounters great difficulties owing to the contradictions between the national interests and the interests of private firms. In these countries, G. Myrdal, prominent Swedish economist, stresses, "the national plan cannot rationally be made in terms of the costs and profits of individual enterprises... The whole meaning of a national plan is to give investment such protection from the market forces as will permit it to be undertaken in spite of the fact that it would not be remunerative according to private business calculations."¹

The authors of the above-mentioned reports see the contradiction in the aims themselves and to eliminate this contradiction propose that a system of evaluating the aims be utilized. But the method of evaluating aims runs counter to the principle of private enterprise and therefore is difficult to use for practical decisions. Thus, in calculating the efficiency of investment, it becomes absolutely clear that priority

¹ G. Myrdal. *Economic Theory and Underdeveloped Regions*, London, 1957, pp. 86-87.

development of individual sectors depends on the private or national economic evaluation of the efficiency of the sectors. Thus, the methodological positions of the reports and even the technical methods of calculating the efficiency of a project run counter to the economic conditions of production in the less developed countries.



Planning is making its first steps in the developing countries. Its distinctions and experience have to be summarised and scientifically analysed. The main thing here is not to divorce planning from the concrete historical conditions. Planning is capable of accelerating the attainment of economic independence, of promoting the development of a national economy and the rise of the living standard. But it can also become a new chain shackling the developing countries to imperialism and subordinating national economic interests to the selfish aspirations of certain circles of the national bourgeoisie.

Experience in socialist planning and capitalist programming demonstrate two opposite types of planning based on different social relations, different aims, essence, forms and practical results. The road of economic development taken by the newly-free countries will also determine the distinctions of their planning and possibility of converting it into a force to transform society or into speculative constructions powerless in face of reality.

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